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DISEASES AND REMEDIES

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# DISEASES AND REMEDIES

A CONCISE SURVEY OF THE MOST MODERN  
METHODS OF MEDICINE

WRITTEN EXPRESSLY FOR THE DRUG TRADE  
BY  
PHYSICIANS AND PHARMACISTS

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## EDITORIAL NOTE

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THIS TREATISE is offered to chemists and druggists under the conviction that it is of the utmost importance that they should be acquainted with diseases as well as with remedies ; that, indeed, they cannot duly understand the latter without a knowledge of the former ; in other words, that they fail to occupy the position they are often called on to hold in their relation to the public, and as an intermediary between them and the medical man, unless they have an intelligent acquaintance not only with the medicine but also with the cases in which it is used. With regard to the bearing of this view on the much vexed question of counter-prescribing, it may be said, first, that there is counter-prescribing and counter-prescribing—that there is an illegitimate form of it which should never be practised, and which it is believed that those who do practise it know to be illegitimate, but that there is another form which is not only legitimate but necessary and inevitable, and which is conducive to the best interests of all concerned. But it may also be affirmed with confidence—and this is really the justification of this treatise—that the more the pharmacist knows of disease, of its symptoms and issues, the less eager will he be to assume carelessly the functions of the medical man.

It only remains to add that, with the view of giving effect to these opinions, the services of two experts, one on each of the two departments of the subject—diseases and remedies—have been called into requisition in getting up the work.





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# DISEASES AND REMEDIES.

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## ABSCESS.

A LOCALISED formation of pus or matter in an organ or tissue of the body is called an abscess. It is the result of intense inflammatory action, and may be caused by injuries or by an unhealthy state of the blood or constitution. An abscess may be acute or chronic. The former develops quickly, with great pain, heat, and swelling, and is likely to extend into neighbouring parts. If it be not attended to at once by a skilled surgeon, widespread mischief may be the result. A chronic abscess is slow to mature. The signs of acute inflammation are not marked. It is frequent among the scrofulous. In acute abscesses the temperature is higher than usual—sometimes very high indeed. In chronic forms it is generally normal. The clinical thermometer indicates this. This is an instrument of modern introduction, and invaluable in the diagnosis of disease. The temperature of the human body in its normal condition is 98° F., and whenever it rises above that it is a sure indication of serious constitutional disturbance.

Some abscesses can be prevented from forming by means of suitable drugs.

### TREATMENT.

**Fomentations.**—Flannels wrung out of hot decoction of poppy (which may be conveniently made by dissolving 3ij. of the solid extract in two or three pints of boiling water)



relieve pain, swelling, and either prevent formation or promote maturation. Frequent bathing with hot water is also a recognised mode of treatment.

**Fomentations of Ammonium Carbonate** gr. xx. to Oj. of hot water have been advised to prevent threatened abscess of the breast.

**Belladonna** is given internally to prevent abscesses : ℥v. to ℥xv. of the succus or tincture every four hours. A paste composed of ℥ij. ext. belladon. and ℥j. glycerine applied to the affected part is an invaluable application to allay pain and prevent the formation of matter.

**Oleate of Mercury** and **Morphia** locally is employed to allay pain and prevent fresh formations. It is often used to stimulate cold abscesses, also to absorb after-indurations or swellings.

**Compresses** made of lint or other material are strongly recommended to remove old indurated swellings the result of scrofulous or venereal abscesses.

**Quinine**, in full doses—gr. iij. every four hours—has a marked effect in aborting abscesses, especially those implicating the breasts or gums. A good formula is :—

Quininæ sulphatis . . . .	gr. xx.
Acid. hydrobromic. dil. . . .	℥iij.
Tinct. aurant. . . . .	℥ss.
Aquæ ad . . . . .	℥viiij.
℥j. every four hours.	

**Iodine.**—The tincture, ℥ss. to ℥j., painted over the parts at intervals in chronic abscesses is the usual treatment to promote absorption or to hasten maturation.

**Iodides**, such as ung. potass. iod. or cadmii iodidi or lin. potass. iodidi c. sap., are sometimes preferred to iodine on account of their not producing coloration of the skin.

**Calcium Sulphide** is especially beneficial in cases of small or multiple abscesses, such as boils or carbuncles. (*See BOILS.*)

**Incision** with a lancet or knife is generally required to give the purulent matter free vent.

**Potass. Permang.**—Weak solutions of this salt or carbolic acid (1 to 40) are useful as injections to keep abscesses sweet after evacuation.

Constitutional treatment—generally of a tonic nature—is always necessary in cases of abscess, especially when of the chronic description. Quinine and iron, or the hypophosphites, will be found the most suitable remedies to employ.

## ACIDITY (OF THE STOMACH).

Hydrochloric and lactic acids are natural to the stomach. The former does most of the work of digestion. It helps the pepsin to break up and liquefy the food. Whenever it is deficient, digestion is impaired, the nutriment ferments, and rancid irritating acids are formed. This is one of the most common symptoms of indigestion.

### TREATMENT.

(See DYSPEPSIA.)

## ACNE

is most common during the years of puberty, and is met with in both sexes. It is caused by over-secretion of the oil-glands of the skin. These become blocked up, and pimples are produced with 'black heads.' Hence their popular name. Acne is an ailment of by no means a serious nature, although it may last for a long time. Its disfiguring effect is what is most dreaded, as it generally occurs on the face and neck, where it cannot be concealed. The contents of the pimple can be squeezed out by pressure between the fingers, or by using a tube such as the pipe of a small key, which should be pressed over the pimple. Acne rosacea is the name given to the condition of the nose when it becomes swollen and purple, and which is associated with the excessive use of wine or spirits.

## TREATMENT.

**Exercise** should be of a brisk or active kind. Open-air exercise by cycling, boating, tennis, or the like will give the necessary muscular play.

**Cold Baths** taken daily are merely a form of active exercise. By reducing bodily heat they help to use up excess of fat. They impart tone to the skin, and are the best known preventive and cure for acne. Rain or soft water is best for ablutionary purposes, and a rough towel with considerable friction should be used. Hot baths or Turkish baths generally have a bad effect in relaxing the sweat and oil glands, and so promoting fresh crops of pimples.

**Soap.**—Coal-tar or Stockholm-tar soaps are best. Employed in conjunction with very hot water, for steaming the face at bedtime, they are excellent in some cases, but not in all.

**Diet** should be plain and wholesome ; greasy, rich foods should be avoided.

**Alcohol** in strict moderation exerts a specific effect in many cases. Pure draught beer is best, taken with meals. Spirits come next. Wines, especially weak clarets, are of very little service.

**Potassium Bromide** gr. xx. n.m.que is a good remedy where sexual activity is marked, and may be combined well with ext. salicis nigræ liq. ℥ss. and liq. arsenic. ℥j. to prevent medicinal bromide acne-rash.

**Potassium Iodide**, gr. iij. to gr. v., combined with dec. sarsæ co., is beneficial where the oil-glands require stimulation. It acts as an alterative and a sexual sedative.

**Calcium Sulphide**, gr.  $\frac{1}{10}$  or more t.d.s, may be given with good effect where the eruption has a tendency to become pustular.

**Hydrarg. Perchlor.** gr. j. to rose-water ℥iv. is a useful outward application. It is one of the ingredients of a popular cosmetic.

**Sulphur.**—Few outward applications do any real good in



acne, but sulphur is certainly the best. It can be applied by dusting lac sulphuris on the parts at bedtime with an ordinary powder-puff, or it may be made into a paste with alcohol, applied at night, and washed off in the morning. It may also be used internally.

**Aperients**, when constipation is present : a small liver-pill, such as—

Ext. aloes aquos.	.	.	.	.	gr. j.
Ext. belladonnæ	.	.	.	.	gr. $\frac{1}{3}$
Ext. nuc. vom.	.	.	.	.	gr. $\frac{1}{4}$

Fiat pilula h.s.s.

**Alkalies**, especially in rosaceous forms, or where urticaria is an additional complication. The following is a good formula :—

Sodii bicarb.	.	.	.	.	ʒiss.
Tr. nuc. vom.	.	.	.	.	ʒj.
Spt. amm. aromat.	.	.	.	.	ʒij.
Aquæ anethi ad	.	.	.	.	ʒviij.

ʒj. twice a day, an hour before food.

**Guaiacum**, taken in the form of lozenges, or the following mixture :—

Tr. guaiaci amm.	.	.	.	.	ʒvj.
Tr. cinchonæ	.	.	.	.	ʒvj.
Mucil.	.	.	.	.	ʒvj.
Aquæ ad	.	.	.	.	ʒvj.

ʒss. t.d.s.

It stimulates the healthy activity of the excretory organs, especially the bowels and the skin.

For Acne rosacea :—

Tar capsules,	j.	ter	die	sd.	p.c.
Mag. carb.	.	.	.	.	gr. xx.
Sulph. præcip.	.	.	.	.	gr. xx.
Sodii bicarb.	.	.	.	.	gr. x.
P. zingib.	.	.	.	.	gr. iij.

M. F. pulv.

Sig. To be taken in milk at bedtime.

## AGUE.

'Fever and ague' is commonly met with in pestilential countries, especially India and tropical Africa, and in the low-lying fen country of England.

A patient with 'fever' comes to know the precise time the ague fit begins, and its whole course afterwards. When an attack occurs every twenty-four hours it is termed quotidian ague, every third day tertian, every fourth day quartan. The sufferer feels intensely cold for an hour or so, and, do what he will, cannot get warm. This gives place to the hot stage—intense heat and thirst. The fit terminates by profuse perspiration. During the intervals the patient is well, only waiting for his unpleasant visitor to come again and rack his constitution.

### TREATMENT.

**Quinine.**—In mild forms of ague, or as a preventive, quinine undoubtedly gives the best results in small doses, gr. j. to gr. iij. t.d.s. In severe paroxysms one large dose, gr. x. to gr. xx., shortly before an attack is expected, or gr. v. t.d.s. If the system does not tolerate it, another remedy should be tried.

**Arsenic** is especially valuable in chronic cases— $\mathfrak{m}\mathfrak{v}$ . of the liquor t.d.s. after food,  $\mathfrak{m}\mathfrak{j}$ . t.d.s. as a preventive.

**Sulphur.**—In the form of sulphur lozenges, sulphur fumigations, or calcium sulphide pills, gr.  $\frac{1}{10}$  doses. Those who work in the Sicilian sulphur-mines are free from ague, although it rages in the vicinity. Sometimes sulphurous acid,  $\mathfrak{m}\mathfrak{x}\mathfrak{x}$ . every four hours or oftener, or sodium hyposulphite gr. xv. to gr. xxx. in water, acts better from its ready solubility.

**Warburg's Tincture** has been greatly praised, and has a large sale in tropical countries.

**Change of Climate.**—If a sufferer is residing in a malarial district he must be ordered to a suitable healthy climate.

**Cold Plunge.**—Shortly before chill is expected a brisk walk and a cold plunge, afterwards a good rub and a drink of

cold water, and then a brisk walk home. This is a heroic plan, but it often succeeds.

## ALCOHOLISM.

Alcohol, taken to excess, destroys, hardens, and renders useless every organ of the body.

Intemperance is most pronounced in persons of an active, excitable temperament, and obtains on them a greater hold. Idleness, great trouble or grief, an irritable brain, the thoughtless recommendation by a doctor of wine to a susceptible patient, are common starting-points of excess—and there can be no doubt of the baneful influence of heredity in many cases, and those the most hopeless. It is generally agreed that alcohol in any form is bad for children.

### TREATMENT.

**Entire Abstinence** from all intoxicants is the only real cure for those who, possessing an unstable brain, drink to excess. Unfortunately it is generally most difficult, often indeed impossible, to enforce it, yet it should always be insisted on.

**The Swedish Cure** consists in isolating the patient and saturating all his food with alcohol until he absolutely loathes the sight and smell of the poison. Cures are often permanent. The ordeal is much dreaded by those drunkards who have once tried it.

**Liq. Ammon. Acet.**, taken in a large dose, say 1 to 2 oz., has the reputation of steadying a drunken person.

**Diet Cures.**—Many articles of food have been recommended from time to time. Copious water-drinking allays thirst and washes out the alcohol from the blood. If sufferers can be induced to drink skimmed milk or buttermilk they will continue taking it and avoid the spirit. Milk repairs alcohol-damaged organs, and is a wholesome nutritious substitute. Strong coffee, without sugar or milk, will sometimes appease the dreadful craving. Apples, almonds, raisins, lump sugar, or pure sweets—even chocolate—are not merely nutriment, but in a measure quench thirst and diminish desire.

Such articles can be carried in the pocket and eaten to escape temptation.

**Liq. Ammoniæ** is a very old remedy for alcoholism, and a very good one—7 to 8 drops in half a wineglassful of water. It modifies the sensibility of the stomach and so acts on the nervous system.

**Potassium Bromide.**—Chemists are often applied to by persons who have been indulging in stimulants to excess for days and have brought on a condition of extreme restlessness and sleeplessness. Such persons will solicit laudanum or morphia, but it is the chemist's duty to refuse it. The proper remedy will be found in one of the bromides—40, 50, or even 60 gr. of pot. brom. in one dose, or smaller doses repeated every hour or two. Along with this, strict abstinence should be sternly enjoined, and also a strong effort on the part of the patient to keep himself absolutely quiet. When the bromide does not produce sleep, it will generally soothe the nervous system and induce quiescence.

**Capsicum.**—℥x. of the tincture, combined with other hot camphoraceous drugs, is useful to allay sinking feeling and the morning nausea and sickness. It should be given in small draughts of aerated water. The carbonic acid is itself an excellent remedy for these symptoms.

**Morphia.**—As a rule morphia and all narcotics should be avoided in treating dipsomaniacs. They may become necessary, but that should be left to the judgment of the medical man.

**Iron** has been recommended. The following formula will be recognised by many chemists as having been in print, associated with the name of a public man, in whose case, it is asserted, it effected the cure of dipsomania. He took the whole as a draught when the craving became intolerable :—

Ferri sulph.	.	.	.	.	.	gr. v.
Magnesiae	.	.	.	.	.	gr. x.
Spt. myrist.	.	.	.	.	.	ʒj.
Aq. menth. pip. ad.	.	.	.	.	.	ʒiiss.

Ft. haust. p.r.n. sum.

**Ext. Cinchonæ Fluid.** ʒj. t.d.s. has been strongly recommended, and is serviceable in mild or recent cases.

It is hardly necessary to add that all those secret remedies that are being constantly vaunted for the cure of dipsomania have been exposed again and again and are absolutely unreliable.

## AMENORRHŒA.

Arrested menstruation arises from many causes. The most frequent is pregnancy. The possibility of conception must always be taken into consideration before any treatment is thought of. To tamper with this is felony.

Amenorrhœa is common among young girls who are bloodless and lacking in stamina, whose functional development has been retarded by any excessive strain on the physical or mental powers. Exposure to cold, getting wet, nervous excitement, and change of air from country to town, will induce it at times.

### TREATMENT.

**Liq. Ammon. Acetatis** ʒj. every four hours if the arrested flow is accompanied by signs of fever and caused by chill or getting wet. Putting the feet in hot water is a useful adjunct to the treatment.

**Mustard.**—A mustard sitz-bath is good for acute stoppage, or used daily a short time previous to the usual date of the periods. In chronic cases it is preferable to resort to sitz-baths in conjunction with other treatment.

**Permanganate of Potash** gr. ij. t.d.s. in pill is one of the best remedies we possess. It should be given continuously until menstruation takes place.

**Iron** is invaluable in anæmic cases or where ill-health is marked. Blaud's pills or pil. ferri c. aloes are best. In strumous subjects, cod-liver oil and Parrish's food build up the system, and so remove an obstruction.

**Aloes**, given at or shortly before a period is expected, in full doses, either in the form of mixture as dec. aloes co., or as



pills. Uterine functions are stimulated indirectly by its action on the lower bowel.

**Iodide of Potassium** gr. v. to gr. x. t.d.s. in chronic cases with functional engorgement and headache. The bromide of potassium  $\mathfrak{z}$ ss. n.m.que or the chlorate salt are equally serviceable.

**Cold Sponging** or cold sitz-baths are resorted to when stoppage is due to debility and laxness of tissue.

**Emmenagogues.**—Ext. ergot. liquid., savin, and pennyroyal act as emmenagogues, but require caution in their administration. Aletris cordial, tinct. actææ racemosæ, liq. caulophylli c. pulsatillâ, have all been lauded as excellent remedies.

**Valerianate of Quinine** gr. ij. t.d.s. and valerianate of iron gr. ij. t.d.s. are invaluable in the amenorrhœa of debility, hysteria, or want of nerve tone.

**Aperients.**—The bowels must always be attended to, and kept open, if necessary, by aperients.

**Change of Air** is desirable in cases where climate or mode of living has had to do with the disorder.

**Mental Rest** is essential in cases caused by brain overstrain.

## ANÆMIA OR BLOODLESSNESS.

When the girl develops into womanhood, or the boy takes on the functions of a man, the system is greatly taxed. The muscles want plenty of play in the open air, and the appetite requires to be satisfied with a liberal supply of wholesome food. Modern styles of living—want of exercise, and neglect of elementary laws of health—are not conducive to the due development of the frame or to richness of blood. The blood becomes poor and watery, bereft of red corpuscles, lacking iron. This is called anæmia, and, if complicated with perverted uterine functions, chloro-anæmia or chlorosis. The skin is pale and clear, with sometimes a greenish tint, the lips and eyes are blanched, shortness of breath occurs on slight



exertion ; headache, backache, giddiness, even fainting, and great lassitude, are its common symptoms.

### TREATMENT.

**Aperients.**—According to Sir Andrew Clark, the most potent cause of anæmia is constipation. Fæcal poisons are absorbed from the bowels, and enter the blood, destroying the red blood-corpuscles. An aperient iron mixture, such as is a stock mixture of most hospitals under the name of *mist. ferri salina*, is excellent. Thus :—

Ferri sulph.	.	.	.	.	gr. xvj.
Magnes. sulph.	.	.	.	.	ʒiv.
Acid. sulphuric. dil.	.	.	.	.	ʒj.
Aq. menth. pip. ad	.	.	.	.	ʒviiij.
ʒj. t.d.s.					

**Food** not to be too nourishing, but such as forms bulk rather than concentrated nutriment—a full vegetarian diet, with a fair supply of meat. This forms substance, and so enables the bowels to act regularly.

**Brisk Exercise**, such as well fills the lungs with air, and thus fully oxygenates the blood, is imperatively necessary.

**Dress** should not be too heavy or tight-fitting. Tight-lacing must be strictly forbidden, and skirts should be fastened so that the weight is borne by the shoulders, and not by the waist.

**Iron** forms an essential constituent of the blood, and, when given in anæmia, almost invariably cures. It must be continued for a length of time. The aperient mixture mentioned above is one of the best forms of giving it. Blaud's pills gr. x. t.d.s., continued for a month regularly ; tinct. ferri perchlor. ʒx. ; vin. ferri ʒj.—ʒij. ; pil. ferri c. myrrh. or pil. aloes et ferri—may be administered to suit individual requirements. When the tinct. ferri perchlor. is given in sweetened milk it does not affect the teeth.

**Alkalies** are sometimes required, but should always be

combined with iron to prevent their lowering tendency. The following is a favourite form :—

Ferri et ammon. cit.	.	.	.	.	ʒij.
Potass. bicarb.	.	.	.	.	ʒiij.
Syr. aurant.	.	.	.	.	ʒiv.
Aquæ ad	.	.	.	.	ʒiij.

S. et M. ʒj. t.i.d. post cibos.

**Arsenic** is of great value. It can be combined with iron in mixture form, or may be given as a pill, gr.  $\frac{1}{100}$  to  $\frac{1}{50}$  arsenious acid with gr. ij. ferr. redact. t.d.s. Arsenic is also the best known remedy for the peculiar and rare form of fatal anæmia called ‘pernicious.’

**Oxygen.**—The gas inhaled, or oxygen-water taken as a beverage, increases aëration of the blood, and so helps to remove anæmia.

## ANGINA PECTORIS.

It is a terrible experience to be shut in a dark room with an unseen enemy. An aged person seized with suffocative breast-pang has this kind of feeling. There is a mysterious something within his chest, and he feels as if death were near. The attack is sudden, with severe pain which prevents freedom of breathing. The pain is grasping, crushing, stabbing—an awful pain. With it is a distressing feeling of sinking, of faintness, of impending dissolution. Angina pectoris is mostly a nervous disorder. There are nerves which regulate the functions of the heart and blood-vessels, which are also in touch with the lungs, liver, stomach, and kidneys. The heart is generally fat-diseased, and the small coronary arteries which supply the heart are rigid and bony. A slight perturbation or upset of the nervous machinery throws out of gear the heart’s mechanism, and a paroxysm of angina results.

### TREATMENT.

**Quiet Living** is essential. A sufferer from angina should rigorously avoid excitement, hurry, or worry, and his food should be as light and as well cooked as possible, so as to avoid the danger of overloading or distending the stomach.

**Empl. Belladonnæ** worn over the region of the heart is much appreciated by some sufferers.

**Potassium Bromide** gr. xx. combined with  $\mathfrak{m}\mathfrak{v}$ . succ. bellad. in water  $\mathfrak{z}\mathfrak{j}$ . will quiet the heart's action and often prevent or mitigate threatened attacks.

**Nitrite of Amyl** inhaled, or trinitrine tabloids taken, are acknowledged to be the best palliatives for this disease during a paroxysm.

## APHONIA OR LOSS OF VOICE.

This is generally one of the symptoms of a common cold. The vocal cords become relaxed like the strings of a violin when not screwed up, and, like them in that condition, refuse to give out a clear sound.

### TREATMENT.

The throat should be well protected, and cold and fog and night air should be avoided. The inhalation of steam at night is an excellent remedy. Lozenges of an acid or astringent nature should be used—black currant or tannin, or the latter with cayenne. Irritating external applications, such as lin. camph. co., to the throat may also be resorted to. Gargling the throat or pencilling it with glycerine of tannin will be useful in more persistent cases. Aphonia is sometimes, although rarely, a grave malady, arising from organic causes. Such cases must be referred to the throat or chest specialist.

## APOPLEXY.

As years pass on and the system gets worn out the arteries lose their natural elasticity, become rigid and bony, and are liable to burst. This rupture occurs most frequently in the brain, and this is the most usual cause of apoplexy, partly because the brain is surrounded by fluid and is movable inside the skull, but chiefly on account of the circulation being forcible and free in that organ. It is the first part to bear the strain, and its vessels are the earliest to give way. In a severe

form the patient is unconscious, his breathing is loud and stertorous, his eyes are insensible to light. He has coma. If he emerge from this, some form of local or general paralysis of one side of the body will be noticed. The amount of paralysis and its character depend on the particular portion of the brain that the blood-clot has usurped.

#### TREATMENT.

**Ice-bag to Head.**—It must be remembered that apoplexy is an effusion of blood into the brain-substance, and the great object of all preliminary treatment is to stop the hæmorrhage. Cold applications to the head are useful for this purpose.

**Limb Ligatures.**—If the patient is of full habit, it is a good plan to divert the blood from the head by drawing it into other parts. A handkerchief or band tied round one or more of the limbs just sufficiently tightly to obstruct the venous circulation causes the vital fluid to accumulate in the vessels of the extremities. The other portions of the circulation, especially that to the brain, are eased in consequence. The head should be raised on pillows and not allowed to be too low in the bed.

**Aperients** of a cathartic nature, such as  $\mathfrak{m}\mathfrak{j}$ . to  $\mathfrak{m}\mathfrak{i}\mathfrak{j}$ . of ol. croton. mixed with a little oil or rubbed up with sugar, placed on the back of the tongue. This carries off a great deal of liquid from the system, and the good effect is at once manifest by improvement of the symptoms.

**Ergotin** injected in full doses hypodermically (gr. j. to gr. iij.), digitalis, and other internal styptics, may be sometimes administered to prevent further extension of the hæmorrhage.

#### ASTHMA.

Asthma is a peculiar form of nervous disorder, frequently hereditary. It is a spasm of the bronchial tubes which prevents the free entry and exit of air to and from the lungs and impedes the circulation and oxygenation of the pulmonary blood. In a

typical case the patient wakes up suddenly in the middle of the night with a sense of tightness at the chest and inability to breathe freely. He has loud wheezing and a feeling of being stifled. If able to do so he makes for the window to inhale fresh air. Asthma is not dangerous to life unless complicated with heart disease or chronic bronchitis. It is a frequent complication of other diseases—such as diabetes, gout, and stomach disorders. To watch anyone in an attack is very distressing.

### TREATMENT.

**Residence.**—This is a most important consideration for asthmatic patients when it can be attended to. Some places and some surroundings which are otherwise unhealthy suit them admirably—London fog, the atmosphere of the Underground Railway, and the emanations of the stableyard are often beneficial. Unfortunately, as in the treatment generally, no rule can be laid down, as what is suitable for one case may not suit another at all, and the right surroundings must be left to be found out by experience.

**Diet.**—An asthmatic who is careful about his diet suffers much less in consequence. Light, easily-digested food is best. The principal meal should be taken in the middle of the day. The supper should consist of a cup of beef-tea and toast, arrowroot biscuits, or nutriment of a light character, such as experience will demonstrate to the sufferer to be best fitted to his case.

**Exercise** is of great importance. It should be of a light and unfatiguing kind, when it promotes digestion and is serviceable in the due preparation of the blood for the nourishment of the nervous system.

**Caffeine**, either in the form of strong coffee or the effervescent hydrobromate or citrate  $\mathfrak{zj}$ . p.r.n., is a useful drug to ward off an impending attack. Combined with antipyrin its action in many cases is wonderful :—

Antipyrin	.	.	.	.	.	gr. xl.
Eff. caffein. hydrobromatis	.	.	.	.	.	$\mathfrak{z}iv$ .

Mix and divide into six powders. One every four hours.



**Potassium Iodide**, plain or combined with spt. ammon. aromat. Pot. iod. seems to have a specific effect in many cases of asthma. It is given in large doses—10 gr. or more if it can be borne, twice or thrice a day. It is the principal component of a proprietary remedy for asthma of considerable repute.

**Tr. Lobeliæ Ætherea** is perhaps the best and most curative remedy for true asthma. It acts like a charm, combined with iodide of potassium or sodium, in the following mixture :—

Sodii iodidi . . . . .	gr. xl.
Tinct. lobeliæ æther. . . . .	℥lxxx.
Codeiæ . . . . .	gr. j.
Aquæ camph. ad . . . . .	℥viiij.

℥j. every four hours.

**Inhalations** are useful palliatives. Nitre paper burned below the nostrils often gives great relief by oxygenating the air breathed. A favourite burning powder is the following :—

Nit. potass. . . . .	℥ss.
P. fol. stramon. . . . .	℥j.
P. sem. anisi . . . . .	℥ss.

Misce.

A thimbleful to be burned on a plate, and the fumes inhaled.

There are various proprietary articles which are probably of a similar composition. Stramonium—especially the Indian variety, the *Datura Tatula*—smoked as a cigar, or in a pipe, is also a favourite remedy.

**Ether** or other antispasmodics, such as ammonia and chloric ether, are used to relieve urgent symptoms :—

Sp. ætheris . . . . .	℥xx. to ℥xl.
Tr. hyoscy. . . . .	℥xx.
Aquæ camph. . . . .	℥j.

P.r.n. sum.

**Grindelia Robusta.**—The liquid extract given in doses of ℥xx. to ℥xxx. is a valuable remedy in many cases. This remedy may also be given with advantage for a length of time as a preventive in form of gr. iij. pills of the solid extract.



## BILIOUSNESS.

The liver is subject to various disorders. The one to which the name 'biliousness' is commonly applied is when it becomes sluggish and unable to fulfil its proper function. This happens from various causes—want of exercise, mental worry, some error or excess in diet. Sometimes it occurs without any apparent cause, and many persons are constitutionally subject to it.

The symptoms are, bitter taste in the mouth in the morning, pale-coloured stools, headache or giddiness, pain under the right shoulder blade, depression of spirits or irritability, and general malaise.

## TREATMENT.

**Diet.**—This should be of the simplest character, and, during an attack, in very small quantity. Also, as the function of the liver is to operate on fats and hydrocarbons, all such articles as cheese, pastry, and rich greasy dishes should be avoided. For drink, pure spirits, as whisky and brandy, well diluted, are to be preferred to wine and fermented liquors.

**Cholagogues.**—Mercury is the time-honoured antibilious remedy. Combined with pil. rhei co. or with pil. col. et hyos. it rarely fails in bringing the liver to a sense of its duty. The more recently introduced cholagogues—podophyllin, euonymin, &c.—are also very efficient. Most bilious people derive benefit from an occasional dose of such remedies. The following are approved formulæ :—

Podophyllin.	.	.	.	.	gr. iv.
Ext. belladonnæ	.	.	.	.	gr. iij.
Pil. col. co.	.	.	.	.	3ss.

Misce.

Div. in pil. xx. One every second or third night.

Pil. hydrarg.	.	.	.	.	gr. ij.
Pil. rhei co.	.	.	.	.	gr. ij.

Misce.

Ft. pil. tales xij. One h.s.

**Dilute Nitro-hydrochloric Acid** is good along with a tonic after the liver has had a thorough stir up with cholagogues, as in the following :—

Acid. nitro-hyd. dil.	.	.	.	ʒij.
Liq. strychniæ	.	.	.	ʒj.
Inf. aurantii ad	.	.	.	ʒvj.
ʒss. t.d.s.				

Or—

Acid. nitro-hyd. dil.	.	.	.	ʒij
Succi taraxaci ad	.	.	.	ʒiij.
ʒj. to ʒij. t.d.s.				

## BOILS.

Many common ailments not in any way dangerous to life are frequently accompanied by pain severe out of all proportion to the extent of parts involved. This is so with the small, tense, pustular swelling called a boil. Young healthy adults of full habit who live too well, are common sufferers. So also are those whose constitutions are debilitated by want of proper food or by unhealthy surroundings. Boils usually occur in crops or series, and are seldom accompanied by fever or constitutional disturbance. They give rise to much general discomfort and broken rest until they break and the central core of dead skin comes away.

### TREATMENT.

It should be kept in view as a guiding principle that boils may proceed from one of two quite opposite causes—viz., from the blood being either too rich or too poor—and that the treatment must vary accordingly. Sometimes it must be of a setting-up nature, and consist of full diet and of bracing tonic remedies such as acids and iron ; at other times the diet must be spare and the remedy of an alkaline nature, and it may be difficult to know the proper treatment except by experience.

**Sulphides** exert a specific action on boils. They modify the peculiar condition of the blood that causes boils to appear.

The sulphide of calcium is the salt generally employed, in doses of gr.  $\frac{1}{10}$  t.d.s.

**Quinine Sulphate** in full doses, gr. iij. in ac. hydrobromic. dil.  $\mathfrak{mxx}$ , is a good remedy when boils are caused by debility or malarial poison.

**Yeast**  $\mathfrak{zss}$ . t.d.s. is also a valuable remedy.

**Guaiacum** given in the form of mist. guaiaci  $\mathfrak{zj}$ . t.d.s. is not unpleasant to take, though appearances are against it. It may cure boils when other remedies fail.

**Diet** should be simple, and the sufferer should partake largely of fruit and vegetables, which cool the blood and serve as gentle evacuants. As a general rule oatmeal and sugar should be avoided, as they are heating.

#### ABORTIVE TREATMENT.

**Camphorated Mercurial Ointment**—that is, the ung. hydrargyri co. B.P.—is a very serviceable preventive application rubbed into the part affected.

**Empl. Galban. Co.** is an old but a very effective remedy of this character. It should be spread on small round bits of leather—black kid leather by preference for appearance sake—sufficient to fully cover the boil, and renewed every twelve hours. In an early stage this will drive the boil back, and in a later stage it is equally effective in bringing it forward. Even after the boil has burst the plaster is a most effective means of evacuating it of the matter.

### BRONCHITIS.

The bronchial tubes are the passages through which air passes to the lungs, and by which we breathe. They are lined throughout by a delicate mucous membrane, which chills, cold air, and other irritants, the extreme delicacy of baby structures, or the inelasticity of advancing years, render prone to inflame and oversecrete its natural mucus.

Bronchial disease is partial to the extremes of life. It assumes the acute form in the young child struggling with its teeth or some infantile complaint, while the chronic form

singles out the aged. Once established, the winter cough and chronic bronchitis in its severe forms return regularly every autumn. It is not difficult to alleviate the trouble, but it is hard to cure it.

#### TREATMENT.

**Clothing.**—More can be done by attention to clothing in cases of chronic bronchitis than by drugs alone. The advantages of wearing flannel are obvious. Above all, the feet should be warmly shod. House-slippers should be warm and fur-lined. By attention to these matters, not only can life be prolonged, but the patient's remaining days are rendered much more comfortable. Patients should be urged to sleep in blankets in preference to sheets.

**Diet** is an important item in treatment. As the cough and expectoration are most troublesome in the morning, a cup of warm tea or coffee, with toast or a biscuit, before rising, is useful. Sufferers require a little food at frequent intervals, and should never be overfed. A light nourishing supper promotes rest and sleep. Alcohol must be taken in great moderation, as it may increase the symptoms. Malt extract and cod liver oil are helpful in weakly or strumous subjects.

**Inunction.**—The application, with friction, of warm oil to every portion of the body is invaluable in acute infantile cases. It promotes perspiration by bringing the blood to the surface, and it soothes a teething or restless child, so that it falls into a quiet refreshing sleep, and wakes with much diminution of the symptoms.

**Mustard**, in the form of mustard leaves applied to the back, is useful as a counter-irritant. In severe forms of the malady large mustard poultices may be resorted to with great benefit. The leaves should be kept on as long as the patient can bear them.

**Poultices**, as a rule, should not be used in cases of bronchitis. If used at all, they should be applied as hot as can be borne, and changed quickly; but the patient is apt to catch cold in changing them, and the symptoms will then be

greatly aggravated. The effect of poultices without this drawback may be obtained by applying flannel wrung out of hot water and covered with cotton wool and jaconette.

**Inhalations, Fumigations, Sprays.**—A bronchitis kettle for steaming the room is an essential adjunct to treatment in acute bronchitis, and a teaspoonful of oil of eucalyptus may be added to the water in it. Sulphurous acid, in the form of spray, or a sulphur pastille burnt in the sick-room, has also been recommended. Tinct. benzoini co., ʒj. to Oj. of boiling water, or acid. benzoic. gr. x. to Oj., can be used as an inhalation to check expectoration. Warm vaseline atomisers are also now largely employed.

**Liq. Ammon. Acet.**—In acute forms of bronchitis, liq. ammon. acet., spt. ætheris nit., or potass. citras must be administered to act on the skin and allay feverish symptoms.

**Potassium Iodid.**—A most useful remedy when the phlegm is hard and difficult to raise. The iodide loosens and liquefies the mucus, so that it is readily expelled. If there is difficulty of breathing, the iodide may be combined with tinct. lobeliæ æthereæ, as follows :—

Pot. iodid.	.	.	.	.	gr. xl.
Tinct. lobel. æth.	.	.	.	.	℥lxxx.
Aquæ camph. ad	.	.	.	.	ʒviij.
ʒj. every four hours.					

**Ammonia Salts** act as stimulating expectorants, and are of great value. The carbonate is chiefly used, but the chloride has its advocates. They are suitable for the chronic stage, and are very generally given along with senega, as follows :—

Ammon. carb.	.	.	.	.	ʒj.
Syr. tolu	.	.	.	.	ʒiv.
Inf. senegæ ad	.	.	.	.	ʒvj.
S. et M.					
Sig. ʒss. 3tia vel 4ta hor. q.q. ex aq.					
Ammon. chlorid.	.	.	.	.	ʒij.
Syr. aurant.	.	.	.	.	ʒj.
Aquæ	.	.	.	.	ʒviij.
ʒj. quâque quartâ hora,					



**Ipecacuanha and Antimony** are both good expectorants. The wine of either—preferably the former—may be used as the essential ingredient of a cough-mixture. With this may be combined succ. conii, tinct. camph. co., syr. scillæ, spt. chloroform., to soothe and allay bronchial irritation. If there be much wheezing or loose expectoration, liq. arsenicalis ℥j. to ℥ij., according to the case, is a useful addition.

**Terebene, Pure.**—Five drops on sugar is a valuable remedy for winter cough. Syrup of tar (U.S.P.), or pil. picis gr. ij., is also of use.

**Acids.**—Mineral or vegetable acids are effectual to lessen secretion and to check cough. Lemon-juice and glycerine is a good combination, or hydrobromic acid may be added to a cough-mixture.

**Opiates.**—Cough-syrups containing morphia should be avoided as a general rule. If, however, the cough is violent out of all proportion to the attack, and there is very little real bronchial mischief, opium or morphia will have a very beneficial effect. Chloral hydrate, in doses of gr. ij. to gr. x., is also serviceable in such cases, and does not block the secretions. Opium acts by inspissating the secretion which it is the object of treatment to liquefy and get rid of; therefore when it is given it should be combined with a stimulant, such as ammonia or chloroform. The following recipe for hard bronchitic cough has the sanction of the highest authority :—

Tr. opii ammon.	.	.	.	.	ʒvj.
Tr. card. comp.	.	.	.	.	ʒij.
Syr. scillæ	.	.	.	.	ʒiiss.
Aquæ menth. p.	.	.	.	.	ʒiiss.
Misce.					

ʒij.—ʒss. nocte manequ ex aq.

**Stimulating Liniments** are much used in chronic bronchitic cases for rubbing the chest. The best are lin. opii ammon. (Bow's), lin. chloroformi, lin. camph. co.

## BURNS.

Two chief factors determine the danger of a burn—the depth to which it has penetrated and the extent of surface



involved. If the burn extends deeply into the flesh, involving the true skin, dreadful scars result, and when more than two-thirds of the skin's surface is involved, 'breathing' from the skin is stopped, and the patient dies poisoned. Fortunately, severe burns or scalds of these types are rare. The majority of cases are of a simple and superficial character, and are easily treated.

#### TREATMENT.

**Powders.**—There is nothing more efficacious for recent burns than French chalk, kaolin, or fullers' earth in fine silken powder; if not available, flour may be used, but it has the objection that it is liable to cake and decompose, causing irritation.

**Cotton Wool.**—It is an excellent plan to envelop the part thickly in ordinary cotton wool, and to allow it to remain undisturbed as long as possible. This treatment is applicable to all blistered surfaces.

**Carron Oil** (lin. calcis B.P.) is the universal remedy, and one which can always be relied on.

**Sodium Bicarbonate.**—A saturated solution is said to markedly relieve the pain and smarting of scalds, or the powder can be dusted over the injured part.

**Ung. Zinci.**—To allay subsequent inflammation and promote healing no remedy is equal to zinc ointment applied freely on linen. Some medical men prefer ung. boric. for this purpose, and sometimes the two ointments are used, mixed in equal proportions.

**Iodoform** promotes healing if sprinkled on the part. This drug should not be used to recent burns, lest it should be absorbed.

**Cold Applications.**—Formerly cold applications, such as placing the part in cold water or pouring ether on the part, were largely resorted to, but these are not to be recommended.

#### CANCER.

It is highly probable that syphilis, leprosy, scrofula, consumption, and cancer are all intimately associated with one

another. Many young consumptive adults who in former days would have died in early life are now rescued by medical skill, but they are liable in later life to die from cancer.

The nature of cancer is perfectly understood. All surfaces, cavities, and organs of the body are lined by a structure called epithelium, composed of cells which in health are continually being thrown off to be replaced by fresh growth. A cancerous growth is composed of epithelial cells. For some unknown reason more new cells are reproduced than are required to replace those thrown off by wear and tear. The superfluous cells accumulate rapidly at the tumour seat. As the growth enlarges it destroys the healthy structures in its vicinity. Sometimes it reaches a vital part and so destroys life. At other times a large blood-vessel is eaten into and fatal hæmorrhage occurs, or it may infiltrate the system and cause death by blood-contamination and exhaustion.

There seems to be no mode of depriving the cancer-cells of their power to reproduce themselves. If we knew why they increased so, we should be within measurable distance of a cure for this terrible disease.

#### TREATMENT.

**Diet.**—Various forms of diet have been brought forward from time to time as capable of curing cancer. A milk diet, so beneficial in kidney disease, has no effect. A purely vegetarian diet is asserted to cure, by enthusiasts of the vegetarian school, but experiments have found it wanting.

**Removal by Operation.**—There is but one recognised treatment for a malignant tumour, and that is its early removal by the knife. Even this, as a rule, offers but a temporary respite to the sufferer, for the growth generally returns at the seat of operation. Still, it offers to the patient a relief from suffering for at least a time.

**Chian Turpentine.**—It will be recollected by many how Professor Clay, of Birmingham, in 1880 brought forward his claim to the discovery of a specific for cancer. It consisted of a mixture and pills, containing as its chief ingredients

Chian turpentine and sulphur. His formulæ were as follows :—

Ethereal solution of Chian turpentine			
(ʒj. in fl. ʒij. pure ether)	.	.	℥xv.
Mucilage of acacia	.	.	ʒij.
Syrup	.	.	℥xxx.
Sublimed sulphur	.	.	gr. iiss.
Distilled water to	.	.	ʒj.
Misce. T.d.s.			
Chian turpentine	.	.	gr. ij.
Sublimed sulphur	.	.	gr. ij.
Make one pill.			

Dose : Take two every four hours.

It must be admitted, however, that this treatment has not fulfilled the promise held out at the time.

**Calcium Sulphide** gr.  $\frac{1}{4}$  to gr. ss. t.d.s. long continued has been given with good effect after cancer operations to prevent recurrence, and is worthy of further trials.

**Opium.**—Opium and its preparations are largely used for the purpose of relieving pain and suffering. They must be given under medical supervision and in full doses. Sometimes chloral hydrate gr. x. t.d.s. may be preferred if opiates block the secretions or cause nausea and headache, or a combination such as ‘bromidia’ may be resorted to.

**Remedies Without Number** continue to be brought forward as cures for cancer—all kinds of drugs, electricity, compression, setons, &c. Count Mattei’s electro-homœopathic remedies will occur to many, and how they have been found by an investigation committee to be absolutely worthless. All such remedies are serviceable only inasmuch as they keep the patient interested, and so divert his mind from his terrible affliction and render his sufferings less hard to bear.

## CHANGE OF LIFE.

This great physiological change—the extinction of the sexual life—has a most important and critical bearing on woman’s health. It is an epoch in her existence when the

uterine functions are in a state of abnormal activity, and it is not astonishing that a variety of constitutional disturbances should arise, in consequence of the necessity of the various structures adapting themselves to the altered state of affairs.

The symptoms which point to a commencing menopause are very varied, and are mostly of a neurotic type, or depend on alterations of the circulation. The patient's periods are often irregular or profuse, she complains to a variable degree of pressure, burning, giddiness, throbbing, or noises in the head. Sleeplessness, hot flushes, rheumatic or neuralgic pains, hysteria, depraved temper or appetite are other signs, and all sorts of strange fancies may take possession of the mind. This is the period when the most serious cases of melancholia occur, and the intense mental depression and suffering which result, not infrequently develop a suicidal tendency. Constant watchfulness and, if possible, change of air and scene are required ; but in all these cases, even those which seem the worst, there is always good reason to anticipate recovery.

The average age for the change of life to occur is forty-five. After a variable period—it may be months, possibly years—the system recovers its normal fibre. The woman takes, as it were, a new lease of life.

#### TREATMENT.

**Diet** must be plain and unstimulating, with little or no alcohol, and a sparing allowance of meat. Tepid baths are good, but late hours, excitement, and worry are highly prejudicial.

**Aperients.**—Constipation is a frequent concomitant of the menopause, and is best overcome by a liberal fruit diet and a course of one of the natural aperient mineral waters ; but in some cases a simple pill of aloes, or aloes combined with pil. hydrarg., answers better.

**Potassium Bromide** is perhaps the most valuable drug we possess to relieve the varied nervous symptoms. It soothes the despondency, sleeplessness, and irritability. It



should be given in doses of  $\text{ʒss. n.m.que}$ , and continued for some length of time. Bromides should not, however, be given in cases of true melancholia. Sulphonal or paraldehyde are the best hypnotics.

**Ergot.**—If the menorrhagia is profuse it may be controlled by ext. ergot. liq. in  $\text{ʒss.}$  or  $\text{ʒj.}$  doses t.i.d., or by acid. gallic., gr. x. t.d.s., and a steady and prolonged course of iron should be taken, intermitting it during the periods.

**Eucalyptus Oil**, 5 drops on sugar, is a serviceable drug to relieve the flatulent distention, but spt. ammon. arom., combined with spt. camphoræ, is often better.

**Zinc Valerianate** gr. ij. in pill is useful to relieve the hot flushes. The inf. valerian. in mixture is better to relieve the hysterical symptoms.

**Tonics** are not always well tolerated. Liq. arsenic.  $\text{mij.}$  to  $\text{mv.}$ , ferri et quiniæ citrat. gr. iv., tr. nuc. vom.  $\text{mv.}$  to  $\text{mxv.}$ , have their value, but their use is by no means attended with uniform success.

**Change of Air** is good treatment where mere drugs fail to benefit. As a rule inland resorts are better than sea-coast localities.

## CHICKEN-POX.

Chicken-pox resembles smallpox, but has no manner of connection with it. An attack of chicken-pox does not render the system proof against the smallpox, nor *vice versa*.

The fever is slight, the eruption, which comes out in successive crops, has no tendency to produce pits unless violently scratched, and on the third or fourth day the vesicles dry up.

### TREATMENT.

The treatment is very simple. Keep the patients in bed, put them on a milk diet, and administer some saline mixture containing liq. ammon. acetatis or potassium citrate in appropriate doses.

## CHILBLAINS.

Redness, some swelling, and intolerable heat and itching are the features of an unbroken chilblain. More severe symptoms and an abraded cuticle constitute the broken form of this circulatory ailment. Chilblains are difficult to cure. Suitable means of treatment are unpleasant to a sufferer. It is hard to modify the natural predisposition to them. Unlike a true inflammation, a chilblain never spontaneously develops into a pus-discharging sore—that is to say, the chilblain inflammation exhibits tissue change up to a certain point (the swelling which characterises inflammation, as in a sore throat), but it never reaches that point when the tissue degenerates into pus. Herein lies the difference between the chilblain and some other inflammations arising in cold weather. The origin is simple, and the seat of trouble limited. A certain torpidity of nerve action, and consequently of blood circulation, is induced in the hands and feet by low temperature and damp, and some swelling takes place which passes unobserved, until some evening, when the afflicted person begins to feel comfortable, an intolerable itching of the parts arises. This itching is evidence that Nature is trying her best to restore the parts to health, for it is simply due to stimulated circulation in the parts. Chilblains give little trouble during the day, this being another point of difference between them and true inflammations, which go on steadily to their worst if unchecked. The most careful observers are agreed that men, women, and children are not equally liable to attack. Our own observation is that the disposition is hereditary, and that it is not at all a case of poor feeding or poor clothing, but inherent deficiency in circulation, which age, rather than medicinal agents, will remedy, and does remedy, in many cases. The late Sir B. W. Richardson differentiated a class of his patients, and ticketed them ‘Chilblain Circulation’; they are always ailing more or less, have chilblains amongst other things, but are wonderfully long lived. In them the heart never works at high pressure, so it lasts long.



## TREATMENT.

**Hygiene.**—Every sufferer from chilblains should be urged to avoid hot rooms or fires, and to harden the system against cold by means of exercise, warm clothing, and both local and general friction of the body. Warm, double-lined gloves, thick stockings, even washleather socks, have been known to keep them away.

Most of the remedies which relieve the itching check the circulation—consequently, do harm. Aconite is one of the worst things of the kind, and capsicum and arnica are not far behind it. Youngsters should have liberal feeding with ‘malt and oil,’ and a teaspoonful of the following mixture twice daily :—

Tr. belladonnæ . . . .	ʒj.
Syr. phos. co. ad . . . .	ʒviij.
M.	

The belladonna stimulates the circulation, and is much better and safer for children than digitalis, which is good, however, for adults, as in the following :—

Quininæ sulphat. . . . .	gr. xxiv.
Acid. hydrochlor. dil. . . .	℥xx.
Tr. ferri perchlor. . . . .	ʒiij.
Tr. digitalis . . . . .	ʒj.
Glycerini . . . . .	ʒvj.
Aq. ad . . . . .	ʒviij.
M.	

Dose : A tablespoonful three times a day.

For relieving the itching, a lanoline lotion is excellent, and does not interfere with the circulation at all, while it can be applied with benefit to slightly abraded parts :—

Lanolini . . . . .	ʒss.
Sapon. communis . . . . .	ʒij.
Aq. fervid. . . . .	ʒiv.
Fiat emulsio et adde—	
Cocainæ . . . . .	gr. iij.
Spt. rosæ . . . . .	ʒss.
Aq. ad . . . . .	ʒviij.
M.	

The affected parts to be washed with this lotion.

Glycerine is of no use at all. An excellent application is—

Collodii belladonnæ	.	.	.	℥ss.
Collodii flexilis	.	.	.	℥j.

M.

To be painted on the affected parts at 6 P.M. and 9 P.M.—that is, twice in the course of the evening.

One of the best liniments is—

Chloroformi	.	.	.	℥ss.
Lin. belladonnæ	.	.	.	℥j.
Tr. benzoin. co.	.	.	.	℥ss.
Lin. saponis	.	.	.	℥vj.

M.

Apply bits of lint dipped in the liniment to the parts affected, and allow them to remain on for at least ten minutes.

Here the chloroform has a local anæsthetic action, and gives what immediate relief is obtained; the belladonna is the arterial stimulant which hastens the cure; and the soap liniment has a soothing and cooling effect—it is also slightly counter-irritant. Rubbing is not mentioned, because there is no use telling chilblain-afflicted people not to rub; they will do that as a matter of course, and thereby prepare the way for the healing ointment. The tr. benz. co. in the above is colouring; tr. cannab. ind. does quite as well. We add a few more suggestions.

**Iodine.**—The tincture (℥ss. to ℥j.) painted on the parts affected is a most effectual remedy to allay the itching and produce curative action. If on the hands or face the de-colourised tincture may be used instead. If on the feet, pencilling them with a solution of argent. nit., ℥j. to ℥j., is a sure remedy. Of course it stains the skin black, which prevents its application to the hands.

**Sulphurous Acid** diluted with 2 parts of glycerine has been strongly recommended.

**Carbolic Acid Collodion**, 1 in 30, will often be found useful.

**Tannic Acid.**—℥ij. dissolved in an ounce of spirit of wine

—applied with a brush and allowed to dry, it forms a film, and shrivels the swollen surface and gives great relief to the itching and irritation.

Camphor (2 parts sp. camph. with 1 liq. plumbi), cantharides (1 part tinct. with 6 parts lin. saponis), turpentine, cajuput, and many other stimulating drugs furnish a répertoire which may be drawn on according to the judgment and experience of the prescriber.

**Broken Chilblains** are very slow to heal. The following ointment will be found useful :—

Ung. hydrarg. ox.	.	.	.	.	ʒij.
Bismuth. subnitrat.	.	.	.	.	ʒj.
Adipis	.	.	.	.	ʒvj.
Misce.					

Ft. ung. applicand. nocte manequ.

Or the following :—

Ung. zinci oxid.	.	.	.	.	ʒiss.
Ung. hyd. ox. rub.	.	.	.	.	ʒss.
Ol. eucalypti	.	.	.	.	gtt. v.
M. ft. ung.					

## CHOLERA.

It is now ascertained that the contamination of a water supply is the main cause of the dissemination of Asiatic cholera in Europe. Hence the supreme importance of investigating the condition of the water supply whenever this disease makes its appearance ; and it is to this point that the attention of the sanitary authorities is now universally directed.

The awful suddenness with which it strikes down and kills its victims is one of the chief features of cholera.

The first symptoms to be noticed are diarrhœa, chills, and spasmodic pains or cramps in the abdomen. These give place to profuse rice-watery or bloody evacuations, great thirst, general coldness of the body, and speedy death.

Cholera is caused by an active virulent specific microbe, which creates intense inflammation of the digestive organs and great fermentation of the intestinal contents.

If the ravages of the disorder are to be checked it must be taken in hand at once. Very little time is allowed for remedies to have a chance.

#### TREATMENT.

**Hygiene.**—Houses should be well ventilated and free from all effluvia or decaying refuse. Disinfectants ought to be liberally used. Cholera attacks mostly those who are badly housed and badly fed, who are huddled together in slums.

Persons should go about their business as usual and take no heed of fear. If they live quietly and healthily they are in the best state to resist this and any other epidemic disease.

**Diet.**—‘Boil everything’ is a good rule to go on in cholera times, especially drinking water or milk. Unripe or too mature fruit or vegetables should not be allowed.

Alcohol is prejudicial except in strict moderation. The intemperate fall a ready prey.

Let all meals be taken regularly and all food eaten slowly, so that the digestive processes may go on in a normal fashion, and the stomach be abundantly supplied with its natural acid—hydrochloric acid. It will thus present a barrier through which it is generally believed the cholera microbe cannot pass, as it flourishes in an alkaline medium like that of the intestine. Smoking in moderation is asserted to be a preventive of cholera.

**Sulphur in the Socks is a Preventive.**—If a teaspoonful of flores sulphuris is placed in each of the socks every morning, this is absorbed through the freely acting pores of the soles of the feet. This keeps the blood pure, and enables it to resist the action of germs. Sulphur has been much used in Indian epidemics both by fumigation in the shape of sulphur fires burnt round about and in infected districts, and also as lac sulphuris ʒj. to ʒij. taken internally.

**Carbon Bisulphide** is one of the best agents to restore the normal action of the bowels. It was used with great success some years ago in the Paris hospitals.

**Rubini's Camphor.**—A remedy which obtained much credit in former English epidemics was Rubini's camphor, a homœopathic preparation made with equal parts of camphor and rectified spirit. The dose is 2 or 3 drops frequently on sugar. This can also be used as a preventive.

**Sulphuric Acid.**—In view of the fact that acids are deadly to the cholera microbe, mineral acids should be the remedy indicated. Dil. sulphuric acid in doses of 20 to 40 minims, taken when relaxed, is probably the best remedy we possess for cholera. Mixed with syr. aurant. and boiled water, it forms a pleasant acidulated beverage for regular use in times of epidemic.

**Opium.**—Given in the form of chlorodyne or otherwise, twice a day, opium has a magical effect in allaying the cramps and intestinal pains. It is a good drug to combine with sulphuric acid.

**External Remedies** may be found necessary to relieve the cramps in the stomach and bowels. Mustard is the best, applied over the abdomen. For the limbs diligent friction with a stimulating embrocation is recommended—cajuput oil, camphor, turpentine, ammonia have all been well spoken of.

In cholera times no case of diarrhœa should be neglected, as it may always be regarded as a premonitory symptom. The sulphuric acid and opium treatment already spoken of should be adopted, or as an alternative the following :—

Tr. opii . . . . .	ʒij.
Tr. catechu . . . . .	ʒiij.
Tr. kino . . . . .	ʒiij.
Tr. card. co. . . . .	ʒvj.
Mist. cretæ ad . . . . .	ʒviiij.
Misce.	

Sig. : ʒss. quâque tertia vel quartâ hora.

A supply of either of these mixtures should be kept in readiness in every household.

## COLDS.

'A cold' is a term of very wide signification. This article refers only to what may be called common colds



affecting the eyes, nostrils, throat, and chest, but without general or constitutional symptoms. More serious forms of colds are noticed, as Bronchitis, Influenza, Cough, &c., under their respective heads.

A cold may be caused by exposure to damp or cold or draughts, and even when a part of the body only is exposed to them. Many people are very susceptible, and frequently take it without any apparent cause. A neglected cold is the foundation of a large number of dangerous diseases, and therefore any cold should be attended to at once. The use of the cold bath in the morning, with the use of the flesh brush previously, and plenty of brisk open air exercise are the best preventives.

The symptoms of a common cold are, running at the nose and eyes, dryness or soreness in the throat, and cough. These symptoms may exist separately or, more frequently, combined. Often they succeed each other, beginning in the head, and advancing by the throat to the chest.

#### TREATMENT.

**Liq. Ammon. Acet.**—The best remedy for an incipient cold is liq. ammon. acet. It keeps up a gentle action of the skin, and so relieves the affected organs.

Liq. ammon. acet.	.	.	.	.	℥iss.
Sp. ammon. arom.	.	.	.	.	℥iv.
Aq. camphoræ ad	.	.	.	.	℥vj.
Misce. ℥ss. every three hours.					

The patient must keep warm during its use.

**Opium.**—An old and approved method of arresting a catarrh in the head is a full dose of tinct. opii or liq. morph. at night. Ten grains pulv. ipec. co. followed by a basin of warm gruel at night, and a saline aperient in the morning, has the same effect. Tinct. camph. co. is the favourite opiate for relieving cough, but it should be combined with a stimulant; 40 minims of the tincture with 20 minims sp. am. ar. for an adult dose answers well, and 5 minims vin. ipec. may be added.

**Camphor** will often arrest a cold in the head. Ten drops of the spirit on a bit of sugar, or a camphor lozenge or pilule

taken every hour. Bismuth snuff is also excellent for the same purpose.

Bism. carb.	.	.	.	.	.	℥iv.
Pulv. amyli	.	.	.	.	.	℥ss.
Morph. hydrochlor.	.	.	.	.	.	gr. j.
Misce.						

Smelling salts with carbolic acid or oil of eucalyptus will also be found useful.

**Mustard.**—A mustard leaf applied for ten minutes at bed-time to the front of the chest often cuts short a cold affecting the chest. Putting the feet in hot water or mustard and water is also a favourite method of treatment.

**Change of Air.**—Sometimes a common cold resists all treatment, remaining persistently for a long time *in statu quo*. In such a case a change of air generally acts like magic in dispelling it.

## CONSTIPATION.

If it were not for Nature's barrier—the liver—a costive person would not live for many days. Dejecta, if retained for any time, generate virulent chemical alkaloids. These are called leucomaines or ptomaines, and are deadly poisons. They are rendered inert when brought into contact with the liver juices. The small quantity that leaks through into the system destroys the red corpuscles of the blood. A condition of anæmia or bloodlessness is the result. This is a real blood-poisoning—fæcal poisoning.

When an individual works his brain much, nerve force is diverted to that organ. The intestinal nerves become torpid and lazy, and bowel movements are slowed. Constipation is frequent among brain workers.

General debility and want of tone, caused by excesses of any kind or by a sedentary life, render the nerves sluggish and the digestive organs torpid. There is not sufficient peristaltic movement to carry the food onwards.

Women are much more costive than men, and they are peculiarly subject to it during pregnancy. They have more

space for distention without suffering inconvenience, and their mode of life is less active.

#### TREATMENT.

**Regularity of Habit.**—Evacuation of the bowel is periodical and influenced by habit. If the regular call is not obeyed, the necessity for the evacuation passes away. If the call is repeatedly neglected, habitual costiveness is the result. A regular habit can always be acquired if persistently solicited.

**Diet.**—If the bowels have not sufficient material to act upon they will remain costive. Therefore diet should be a full one, with plenty of coarse bulk-forming nutriment, such as fruit, vegetables, and farinaceous grains, with a modicum of animal food to make it nourishing. Fruit taken before breakfast has a valuable aperient action; oranges, apples, or melons are the best to take. If not available, a glass of cold water, with or without a little lemon or lime juice, can be taken instead. All food should be thoroughly masticated.

Young children frequently cry because they are thirsty, and they should be allowed an occasional drink of pure filtered water. A dry diet is to be avoided. A good deal of liquid should be taken with every meal.

Many people, especially town dwellers, find that alcohol in the form of beer helps to regulate their bowels.

**Whole-meal Bread** has a decided tendency to promote the action of the bowels by increasing their peristaltic, or forcing-down, action. It will cure constipation when drugs entirely fail. Wheat is man's staff of life, for, compared with other cereals, the excess of gluten which it contains enables it to be easily made into bread. To obviate the natural binding qualities of the starch and gluten, Nature has provided it with an extremely irritating husk, and she meant this to be eaten with the wheat.

**Exercise.**—Brisk exercise, such as can be had by means of outdoor games and sports, increases the flow of bile—the natural aperient of the body—stimulates the peristaltic movements of the bowels, and is highly conducive to their regular action.

**Massage.**—Firm kneading of the abdomen is of immense service in the constipation of young children, and even adults are sometimes benefited thereby. The massage employed should be firm and deep to be effectual.

**Tobacco.**—Smoking in moderation, especially after breakfast, promotes the action of the bowel. Excessive smoking, on the other hand, by impairing the tone of the nervous system, creates constipation.

**Cascara Sagrada.**—Next to whole-meal bread the most valuable remedy we possess is cascara sagrada, which is a tonic laxative. The fluid extract should be given in daily doses, sufficient to cause one natural daily action of the bowels, and this should be kept up until regular habits have become established. Cascara sagrada is the American analogue of the old-fashioned and very useful English preparation, syrup of buckthorn.

**Glycerine Enema.**—A teaspoonful of glycerine injected into the bowel at the proper time each day is an efficient evacuant, which may be the means of ensuring regularity, or the glycerine suppositories of the Pharmacopœia may be used. Glycerine acts as an irritant, and the efforts to expel it make the bowels act. As a rule, ordinary enemata are prejudicial unless they are merely employed to unload a distended bowel. A piece of soap is used for the same purpose as glycerine for constipated infants.

**Cholagogue Resinoids.**—Of late years the active principles of a number of powerful aperients, such as aloin and podophyllin, have been brought into general use as elegant aperients. They act when the liver is at fault, causing it to secrete more bile, which is the natural stimulant of the bowel. Ext. nucis vom., a drug which is of immense service for want of bowel-tone, is generally combined with the foregoing, but given alone in the form of tinct. nucis vom.  $\mathfrak{m}\mathfrak{v}$ . to  $\mathfrak{m}\mathfrak{x}$ . it is a favourite and successful remedy for constipation.

**Natural Aperient Waters.**—Carlsbad salts, or the concentrated waters of Friedrichshall, Hunyadi, Franz Josef, *Æsculap*, &c., are largely used for constipation, and they are undoubtedly very serviceable. They are best given in adequate



doses in the morning fasting. Potassium bitartrate, Rochelle salt, or sodium phosphate, owing to their being almost tasteless, may be administered as a mild laxative in broth to children.

**Castor Oil** is a useful, safe, and certain aperient to unload the bowels when blocked.

**Aloes.**—There is an endless variety of aperient pills, in which aloes is an almost universal ingredient. They should always contain a sedative, such as hyoscyamus (as in the pil. col. c. hyos.) or belladonna, to prevent griping and pain. The habit of resorting to pills, except occasionally, is not to be encouraged, as the bowels soon come to refuse to act without them.

**Sulphur**, plain or combined with pot. tart. acid or magnesia, from its mild, non-irritating action, is the most suitable aperient when piles are present. The pulv. glycyrrh. co. is also suitable in such cases.

**Guaiaicum**, in the form of mist. guaiaci  $\mathfrak{z}\text{j}$ . t.d.s. or the tinct. guaiaci ammon. suspended in mucilage, will sometimes make the bowels act when strong aperients fail.

## CONSUMPTION.

Consumption is decay of the lung substance, caused by an aggressive germ—the tubercle bacillus—dangerous to those wanting vital force. This germ has many inlets to attack the body through, and it gets to the blood perhaps by the air or food, but it goes no further than the blood. Pure blood contains white corpuscles, minute microscopic octopi, full of arms and legs, waiting to seize and devour the mischief-making germ. But if the patient's constitution is bad; if misery and poverty and overcrowding, or dissipating and enervating luxury, impair the powers of life, then the white corpuscles are lazy and languid, and have no fight in them. The bacillus gets a foothold—its time has come, and it takes advantage of it. It selects the top bit of the lung—the apex, as it is called—a portion stowed away in a corner, out of the way of the inspired air and the brisker circulation—a naturally weak spot, and the



first to capitulate. Vital force maintains the fighting trim of the white corpuscles, whose special duty it is to make war on and remove from the system the invading bacilli and their poisonous secretions.

Consumption is a disease which, more than almost any other, comes under the terrible influence of heredity, passing for generations from parents to children, so that it has come to be a common saying that there is 'consumption in the family.' It usually begins with a cough, which clings to the patient, and he gradually becomes weak and emaciated. These symptoms are followed by many complications—night sweats, diarrhoea, high temperature, quick small pulse, loss of voice, &c.

#### TREATMENT.

Any treatment which can be regarded as affording chance of success must be undertaken at an early stage. Consumption frequently starts with impaired digestion, an inability to eat, and much languor. If these can be remedied the patient may be rescued.

**Hygiene.**—Those who are predisposed should sleep and dwell in large, well-ventilated rooms, containing ample allowance of cubic space. Exercise in the pure air, entailing deeper breathing, and enabling the air to enter the lung apex, will effect wonders in early stages of the complaint. All the expectoration and handkerchiefs containing the sputa should be at once disinfected or destroyed. Every person predisposed to phthisis should lead a quiet, healthy life, retiring to bed early and rising late.

**Diet** should be nourishing, and the food digestible and wholesome. Koumiss, or fermented milk, has been strongly recommended.

**Climate.**—The selection of a suitable dwelling-house in a healthy climate is most important. The climate should be dry and the temperature equable, while the soil should be one of gravel or chalk and not clay.

Those who can afford it, who are in the early stages of the complaint and can stand the journey, will probably get quite

well in the high plateaus of the Engadine in Switzerland, at Davos Platz, or San Moritz. Extraordinary cures have been made there. A sea voyage is also beneficial in recent cases. The constant breathing of the pure sea air renews the vitality of the constitution. It is, however, positive cruelty to send an advanced and utterly hopeless case abroad, to die in misery away from all friends and relations. Many peculiarly situated places in England and Scotland, especially on the south coast of England, have great merits as dwelling-places for consumptive patients—in winter at least.

**Alcohol.**—Although inadvisable during the early stages, or during hæmoptysis, alcohol is beneficial in the form of rum or brandy with milk to remedy the great emaciation which is taking place.

**Hypophosphites.**—The hypophosphites of soda or lime in doses of 5 to 10 grains t.d.s. are simply invaluable in those cases of early consumption caused by want of tone and hereditary deficiency of vital force. By reason of their loosely combined phosphorus they impart vigour and tone to all the organs, and so are largely instrumental in effecting a cure. The dose must be gradually increased.

**Cod Liver Oil** is a typical aliment for the growth and nutrition of the body. It is not intended to supply material in the place of the wasting caused by fever, but to cure the cause of the emaciation. Many tuberculous subjects are unhealthily fat, and yet cod liver oil is good for them, for their malady. If the blood is supplied with this easily assimilable fuel nutriment it is preserved in a high state of functional health, and the white blood-corpuscles are able to destroy the bacilli once again. Cod liver oil should be given floated on lemon juice, coffee, or orange wine, in doses of ʒj. or more, two hours after a meal, or if not well tolerated in this way, it may be given in doses of ʒij. prior to going to bed, when it will be digested during sleep.

**Cream** is a valuable substitute for cod liver oil, if the latter causes vomiting or is badly tolerated.

**Iodine.**—The tinct. iodi ʒss, ad ʒj. painted on the chest

(or in some cases blisters under the collar-bones) relieves the chest-pains and frequently ameliorates the symptoms.

**Inhalation.**—This is a useful method of administering such remedies as iodine, creosote, guaiacol, ol. eucalypt., carbolic acid, sulphurous acid, and is especially advantageous if the throat and larger bronchial tubes are implicated. Inhalations soothe the mucous membrane, antisepticise the secretions, and diminish cough and expectoration.

**Opium.**—All cough mixtures or lozenges containing opiates should be avoided, except in the advanced stages of the complaint. When the cough becomes distressing and there is profuse expectoration, or when the diarrhoea becomes very severe, there is no remedy to equal opium or morphia. Codeia may also be found of service.

*Remedies for Special Symptoms.*

Ext. ergotæ liquid. ʒss. or more, or ergotin gr. j. to gr. iij. (hypodermically).	}	Are efficient remedies to control hæmoptysis or hæmorrhage from the lung originating from the ulceration process eating into a blood-vessel.
Dilute sulphuric acid ℥xx., with gallic acid gr. x.		
Tr. digitalis ℥v. to ℥xx.	}	Are available drugs to check night-sweats.
Tr. belladonnæ ℥v. to ℥xv.		
Atropine gr. $\frac{1}{100}$ to gr. $\frac{1}{80}$ .		
Dilute sulphuric acid ℥xx.		
Zinc ox. gr. ij. to gr. iij.	}	To reduce the temperature.
Quinine sulphate gr. iij. to gr. v.		
Antipyrin gr. x.		
Tr. digitalis ℥v. to ℥xv., combined with quinine.		

CORNS.

The squeezing action of a tight or misfitting boot is the usual cause of corns, and the pain they produce in walking is often agonising,

Most people who have corns resent them, whereas they are really friends in disguise, protecting sufferers from worse things. If any portion of the body is subjected to pressure or hard wear, the skin becomes thickened to protect the parts beneath, and the portion of the surface that is most frequently affected in this way is the skin of the toes. If it were not for this skin induration, the result of pressure would be a blister or some ulceration. If corns are neglected, ulceration actually does occur.

Corns are generally more painful during wet weather and at certain seasons. This is probably due to sundry atmospheric influences acting on shoe leather.

**Paring Corns.**—If practised at all this should be done with great care, so as to avoid cutting the flesh. The only effectual paring is that of the chiropodist. He works with his knife round the hard corn itself, which is embedded in the excrescence, gradually excavating and removing it. But this is an operation requiring considerable skill and experience, and should be left to an expert.

**Properly Fitting Boots.**—When people suffer from corns which prevent their free locomotion, they must wear comfortable, properly fitting boots or shoes. It is best to have these made on a last modelled from the wearer's own foot. By wearing easy boots and shoes, with the upper parts made of soft leather, pressure on the corns is removed, and so the corn or bunion ceases to trouble.

**Salicylic Acid.**—This acid is the most usual remedy for corns. It possesses a slight caustic action. It is used thus :—

Salicylic acid . . . . .	60 grs.
Ext. of Indian hemp . . . . .	8 grs.
Flexile collodion ( $\frac{3}{4}$ strength) . . . . .	1 oz.
Apply daily as a solvent.	

**Corn Plasters.**—The ordinary felt circular plasters with a hole in the centre are of immense value to relieve the pain of pressure, both in the case of bunions and hard or soft corns. Plasters with a piece of salicylic plaster in the centre



give excellent results. Arnica plasters are also well spoken of. Wadding inserted between the toes is effectual for soft corns. A compress of wet lint covered with oiled silk is often a very effectual application for corns.

**Iodine.**—The tincture (3ss. ad ʒj.) is useful to relieve the stinging pain caused by swollen and tender corns, and it answers well for bunions too. It deadens and hardens the skin.

## COUGHS.

A cough is one of the first symptoms of a cold, of inflammatory conditions of the lungs or the chest, of a disordered stomach, of nervous and other diseases. It is at once the system's cry for help and a curative effort.

The air-passages are lined with a delicate membrane sensitive to the most trivial influences. The throat sounds an alarm if the slightest irritant is lodged on the mucous surfaces. By the forced expiration of coughing, foreign matter, such as mucus, is expelled from the larynx or bronchial tubes.

When a person has anything the matter with his chest or throat a cough is a therapeutic agency to get him well again. The series of rapid breaths has a most salutary effect. They increase the action of the heart and circulation, and drive the blood to the surface. Skin-action is restored as it would be by a diaphoretic drug.

### TREATMENT.

**Learning to Cough.**—Much inconvenience can be averted by instructing a patient to cough properly. The expiratory effort should be delayed until the secreted mucus is felt to be within reach, when one moderately strong cough will expel it.

The cough of nervousness or hysteria is largely under the will's control, and sufferers must be told sternly to cease from coughing.

An elongated uvula—if the cause of cough—should be painted or gargled with astringent applications.



**Mucilaginous Drinks.**—Most valuable aids to soothe an irritated mucous membrane and a teasing hacking cough are bland non-irritating beverages, such as gum-water, barley-water, linseed-tea, the French *tisane*, and honey or glycerine with lemon-juice.

**Lozenges** are valuable aids in soothing a cough, especially those containing ipecac., or morphia and ipecac., liquorice, or gum acacia, and jujubes of various kinds.

**Cough Syrup** may be made with the basis of syrup, glycerine, mucilage, or honey, and thus a host of different drugs may be combined in suitable proportionate doses, such as vin. ipecac., tinct. or acet. scillæ, acid. sulph. dil., acid. hydrobrom. dil., morphia or codeia, sp. ether nit., tr. camph. co., &c. The following are good examples of simple cough mixtures :—

Vin. ipecac.	.	.	.	.	ʒij.
Vin. antimon.	.	.	.	.	ʒij.
Liq. morph. hydrochlor.	.	.	.	.	ʒij.
Oxymel. scillæ ad	.	.	.	.	ʒiij.
Misce.	ʒj.	tussi	urgenti.		

*Linctus Tussi Rub.*

Conf. rosæ gallic.	.	.	.	.	ʒij.
Syrup. simp.	.	.	.	.	ʒij.
Syrup. scillæ	.	.	.	.	ʒiss.
Mucilag. acaciæ	.	.	.	.	ʒij.
Acid. sulph. dil.	.	.	.	.	ʒij.
Liq. morph. hydrochl.	.	.	.	.	ʒij.
Vini ipecac.	.	.	.	.	ʒij.

Fiat linctus.

Sig. ʒj. frequently.

**Opium** is often contra-indicated as a cough remedy, owing to its constipating effect and to its blocking the secretions. In the latter case it should always be combined with a stimulant to counteract that effect. In the form of chlorodyne lozenges or a morphia cough syrup it is useful in cases of spasmodic cough. It is useful also combined with antimony and ipecacuan. to obviate the nauseating effect of these drugs, which with some people is very distressing,

**Bromides**, especially the bromide of ammonium in full doses, act like a charm in cases of spasmodic nervous cough.

**Quinine**, in the form of quinine wine, or as a quinine and iron tonic, is good for the cough of debility and want of tone of the mucous membrane, or it may be given in the form of pills.

**Potass. Iodide** is indicated in cases of scanty secretion or gouty cough, and should then be combined with colchicum, thus :—

Potass. iodidi	.	.	.	.	gr. xxx.
Vin. colchici	.	.	.	.	℥xl.
Sp. ammon. aromat.	.	.	.	.	ʒij.
Aquæ ad	.	.	.	.	ʒviij.
ʒj. every four hours.					

**Aperients**, in the shape of laxatives, such as the pil. rhei co., natural aperient waters, and the like, are indicated in coughs of gastric origin. Sometimes pil. hydrarg. c. colocynth., or calomel gr. iss. to gr. iij. at bedtime, is preferable.

**Hypophosphites** of lime or soda in mixture, or with iron, as in the syrup, should be advised in cases arising from too rapid growth, or from threatened phthisis.

**Inhalations** prepared with hops infused in boiling water or chloroform, ℥x. to ℥xv., in eau de Cologne ʒj., and inhaled, or various medicinal sprays, are serviceable in many cases.

**Cod Liver Oil** should be resorted to in cases accompanied by wasting and serious lung mischief.

A writer on cough mixtures in *The Chemist and Druggist*, January 9, 1897, makes the following remarks :—

‘Our first example may be the familiar popular household remedy—equal parts of oil of almonds, syrup of squill, and syrup of violets. Here the active ingredient is the squill, for the other syrup and the oil have no effect whatever upon the air-passages. The squill is an expectorant, and as such increases the bronchial secretion, and by the telegraphy of the human system that fact is conveyed to the respiratory centre,

whence a message is sent to the muscles of the chest, which close as if they were a bellows, thus creating a cough and a discharge of phlegm. Ipecacuanha, senega, ammonium carbonate, and tartar emetic are amongst the remedies which act in this way, and it is obvious that when a person has a copious discharge of soft phlegm he is not at all in need of expectorants. It is here that the traditional cough mixture is potent for good, because it is so rarely compounded without a sedative. A good example is :—

Vin. ipecacuanhæ . . . .	ʒij.
Chlorodyni . . . .	ʒij.
Glycerini . . . .	ʒvj.
Aq. ad . . . .	ʒvj.
M. Sig. ʒss. q. q. h.	

In this there is a small dose of morphine with the expectorant, and morphine does two things—viz., decreases the secretion, and dulls the respiratory centre, whereby the act of coughing is suppressed. It may be said, therefore, that the above mixture is almost neutral, so far as its action upon the bronchial tubes is concerned ; but it eases coughing, gives the medicine-taker a sense of warmth about the chest which he likes, and it does not “upset the stomach.” The last point is one which many prescriptions seem eminently calculated to bring about. Take this as an example :—

Oxymel. scillæ . . . .	ʒij.
Vin. ipecacuanhæ . . . .	ʒss.
Spt. æther. nit. . . .	ʒss.
Syr. pruni virg. . . .	ʒij.
Tr. sanguinariæ . . . .	ʒss.
Inf. senegæ conc. . . .	ʒj.
Glycerini . . . .	ʒj.
Liq. morph. mur. . . .	ʒss.
Syrup. tolutan. . . .	ʒxij.
M.	

Dose : A teaspoonful every four hours.

There is a big waste of material here, and by the time the patient has got rid of his cough, he needs something to cure his indigestion. Polypharmacy is to some extent permis-

sible in the cough mixture, but it should lean towards the combination of flavouring and colouring with one or two active expectorants. The late Sir Robert Christison long ago gave an excellent example of this in his well-known cough mixture :—

Syrupi scillæ . . . . .	℥ij.
Aq. menthæ pip. . . . .	℥ij.
Tr. opii ammoniat. . . . .	℥ss.
Tr. lavandulæ comp. . . . .	℥ss.
Syrupi . . . . .	℥j.

M.

Dose : ℥ss. three or four times a day.

The dose of squill in this mixture is, *per se*, excessive ; but the opium modifies its bronchial action, and the result is a mixture which gives quick relief and comfort. But the objection to this and all other mixtures containing opium is that they are positively harmful in chronic bronchitis, and in many acute cases should be avoided. They do good in the common winter cough. The familiar white cough mixture, in which tr. camph. co. and tr. toltan. are combined with a syrupy and mucilaginous basis, is also good, because the amount of opium present is too small to exert any marked physiological action. Bronchitis mixtures for adults should be as simple as possible. The following is a good one :—

Ammon. carbonat. . . . .	℥j.
Chloral. hydrat. . . . .	℥j.
Tr. card. co. . . . .	℥iij.
Syrupi . . . . .	℥iij.
Aq. ad . . . . .	℥vj.

M.

Dose : ℥ss. every four hours.

This acts like a charm in many cases solely through the expectorant action of the alkali, the chloral hydrate having a sedative effect without counteracting the expectorant. The mixture gradually undergoes change, some of the chloral hydrate reacting with the alkali and liberating chloroform ; but there seems to be a limit to the reaction, and it does not alter the efficacy of the mixture. The tickling cough which

is accompanied by little or no secretion, but is spasmodic and sometimes painful, frequently awaking the sufferer from sleep, is now successfully combated by codeine as in the following prescription :—

Codeinæ	.	.	.	.	.	gr. ij.
Acid. hydrobrom. dil.	.	.	.	.	.	ʒij.
Acid. hydrocyanic. dil.	.	.	.	.	.	ʒss.
Aq.	.	.	.	.	.	ʒss.
Solve et adde—						
Syr. limonis ad	.	.	.	.	.	ʒij.
M.						

Dose : A small teaspoonful when the cough is troublesome.

This acts through the respiratory centre chiefly. We have said little in this note regarding children's cough mixtures, because the little which can be said may be put into one sentence—make the mixtures sweet and as simple as possible, avoiding sedatives. Ipecacuanha is better for children than squill, and they can take a drop of the wine for each year ; allow three drops for the first year. It is desirable to make the cough mixture as nice as possible to the eye and palate ; precipitates should be avoided, as a rule, for they rarely contain anything of importance, and make the preparation unsightly.'

## CROUP

is a disease of the windpipe, with noisy breathing and peculiar loud cough. It occurs chiefly in children from two to five or six years old. It comes on sometimes with symptoms of feverish cold and sore throat, but more frequently gives no warning. The child is put to bed quite well apparently, and in an hour or two wakes up with loud *clanging* cough and signs of imminent suffocation.

### TREATMENT.

This must be prompt and decided. Hot poultices to the throat and chest must be applied immediately, and renewed as they become cool. Free vomiting should be induced by



ipecacuanha wine—a teaspoonful every five minutes till it acts. These means will generally cut the attack short; but it must be kept in mind that the child will be liable to a recurrence of it, and should be carefully guarded against draughts and damp, as likely to bring on cold, should wear flannel next the skin, and should have his general health carefully attended to.

## DENTITION.

The temporary teeth are twenty in number, and commence to come through from the sixth to the ninth month. This is the order in which they usually appear: Two lower front incisors, two upper incisors, two lower lateral and two upper lateral incisors, four first molars, four canines, and four second molars. At the end of two years a child should have all its temporary teeth, but great variation in the time or order of cutting teeth is quite consistent with sound health. Delay results from feeble health, improper feeding, and especially from rickets. Tardiness in talking or walking is frequently caused by delayed dentition.

A child may cut its teeth without any trouble at all. At other times it may be hot and feverish, restless, with tendency to diarrhoea, bronchitis, or convulsions.

## MANAGEMENT.

**Proper Food at Regular Times.**—Children who are tardy in cutting their teeth are either weakly or improperly fed. Plain, unstimulating food, composed mainly of milk and farinaceous articles, given regularly, is essential to the successful rearing of children.

**Sleep.**—Regular habits of sleeping must be cultivated. Sound repose enables baby to digest food, and gives support to the rapidly growing structures.

**Washing.**—Every baby should be washed daily, and kept clean and sweet in every way. The child should have its head cool and its feet and hands warm.

**Inunction.**—Whenever a child is restless and peevish the best preliminary treatment is an oil bath—‘inunction,’ as it is

called. This consists in rubbing the entire surface of the body from head to foot with olive oil or any kind of fat, and then wrapping the tiny sufferer in a blanket. Inunction is safe and harmless, and is far preferable to hot baths. It restores skin action, produces quiet refreshing sleep, and relief of congested deeper parts.

**Laxatives.**—Castor oil and magnesia—the latter either as the powder in milk or as fluid magnesia—are the best laxatives for young teething children. When there is gastric disorder, indicated by green or discoloured stools, hyd. c. creta, one or two grains, plain or combined with as much p. rhei, is a remedy which rarely fails to give good results.

**Lancing the Gums.**—When there is a tendency to restlessness and convulsions, caused by dentition, the points of the erupting teeth can be thoroughly rubbed through by means of a piece of lump sugar, or the gums may be lanced with a proper gum lancet.

**Potass. Bromide.**—The best drug to allay fever and irritability in teething is potass. bromid. in doses of gr. iij. to gr. vj. every four hours, combined with syr. aurant. Chloral, syr. papav., and opiates are unsafe for this purpose.

**Alkalies**, such as magnesiæ carb., fluid magnesia, or creta præparata, combined with tr. zingib. and spt. myrist., are useful for the violent griping pains caused by acidity.

**Lime Salts.**—When dentition is greatly delayed from improper feeding, rickets, or ill-health, lime to consolidate the bony structures is the best remedy. This can be given in the form of lime water mixed with food. In more severe cases the hypophosphite of lime in doses of gr. j. to gr. iij., or even more, t.d.s., will have a more powerful and quicker effect. As cod liver oil may be regarded as a valuable food in these cases of faulty nutrition, emulsion of cod liver oil with hypophosphites would be the best remedy to suggest.

## DIABETES.

This means literally an excessive flow of urine, and there is a form of the complaint—*diabetes insipidus*—which is nothing

more than this, and which is comparatively harmless. It is only when sugar appears in the urine that the true diabetes—*diabetes mellitus*—is diagnosed.

The liver is the storehouse of the sugar derived from food. By means of certain ferments glucose or grape sugar is converted for storage purposes into a liver sugar—an animal starch—glycogen. Whenever this animal sugar is supplied to, or from any other cause appears in, the blood in greater excess than is required for fuel purposes, the patient is said to have diabetes. In such cases sugar permeates all the secretions, it saturates the blood, and is eliminated by the most available excretory organs—the kidneys.

Saccharated blood causes thirst, dry skin, emaciation, and increased flow of urine—diabetes. This disease is chiefly seen among men, is often hereditary, alternating with other nervous disorders, and is equally common among the rich and the poor.

#### TREATMENT.

**Diet.**—It is essential to maintain in the highest degree the vital energy, and the integrity of the digestive organs. Some observers have warmly advocated a purely skimmed-milk diet (Ovj. daily). This would appear to be the best form of treatment in cases of purely liver or digestive derangement. But in cases of true nervous type the sole principle of diet is that of rigorously excluding all sugar or starch foods. The patient should live almost entirely on meat, fish, eggs, fruit, and vegetables free from sugar, gluten or bran bread, macaroni, and many articles which special manufacturers now provide. In the place of sugar, saccharine or glycerine should be used.

**Opium.**—Of all remedies none rank as the equal of opium and codeia. These hypnotics soothe the irritable nerve centres and retard the increased proneness of the liver to part with its glycogen. To be effective, opium or codeia must be administered in very large doses. They are generally well tolerated, but of course their action requires most careful watching. Combined with gallic acid or ergot, opium is invaluable in

cases of increased flow of urine without sugar—the *diabetes insipidus*.

**Quinine**, in doses of gr. iij. t.d.s., has a very beneficial effect in many cases. It should be long continued to effect permanent improvement.

**Ozonic Ether** ʒss. t.d.s., **Oxyaërated Water**, **Oxyaërated Milk**, **Oxygen Gas Inhalations**.—Oxygen administered in any form has been known to remove the symptoms of diabetes by oxidising the sugar in the blood. Exercise and quicker respiration in some measure conduce to the same end.

**Phosphorus** gr.  $\frac{1}{60}$  to gr.  $\frac{1}{30}$  after food is useful to tone and strengthen the nervous system. Acid. phosphoric. dil. ℥x. to ℥xx. may be given with tr. nuc. vom. and tr. cinchonæ as a nerve tonic.

**Bromides** in full doses are aids to treatment if there is much nervous irritability and sleeplessness.

**Sodium Salicylate** gr. x. to gr. xx. in mixture has been known to cure cases complicated with malaria or rheumatism.

## DIARRHŒA.

In the late summer and autumn the ripening of fruit is followed by decay and death of verdure. The germs of putrefaction are at work on the fast decaying foliage. They are partial to warm dry weather, they abound in the air, and nothing organic comes amiss to them. They quarter themselves in food of all kinds, animal or vegetable, in fruit or milk, in anything that is goodly to man and full of nutriment.

With the food they are carried into the digestive organs, and there they take up their habitat, causing fermentation of the intestinal contents, generating ptomaines and irritant products sufficient to liquefy and putrefy the dejecta of food.

This state of things is called 'diarrhœa' or 'summer cholera,' and the mortality from it among children is enormous.

Irritant aperient drugs, unwholesome indigestible food or drink, increase the action of the bowels and produce the same symptoms as diarrhœa.



## TREATMENT.

**Hygiene.**—Rest is an important element in treatment—repose of body, rest for the stomach itself. Rest in recumbent posture is desirable in acute cases. Severe griping pains are best relieved by hot fomentations applied to the abdomen. A flannel belt is a good preventive of diarrhœa.

**Diet.**—Milk should be the staple of diet in cases of diarrhœa. Food should be given very sparingly in small quantities frequently, and light non-irritating substances should be selected: arrowroot blanc mange, boiled milk and lime water; ice to allay sickness or thirst; the white of egg and barley water or toast water.

In the case of infants the milk should be boiled or peptonised and the supply looked to. Feeding-bottles must be kept scrupulously clean. If the complaint persists it is wise to stop all milk, and give barley or rice water and raw-meat juice.

If the teeth are creating trouble the gums should be lanced and a potass. bromide mixture ordered.

**Mineral Acids.**—Diluted sulphuric acid is almost a specific in cases of summer diarrhœa. It should be given in doses of  $\mathfrak{m}\mathfrak{x}$ . or more, and combined with tinct. opii  $\mathfrak{m}\mathfrak{v}$ . if there is much griping pain.

Acid. sulph. dil.	.	.	.	.	℥ij.
Syr. aurant.	.	.	.	.	℥vj.
Aquæ ad	.	.	.	.	℥viij.

℥j. every three hours.

**Mist. Cretæ Aromat.**—If there is much acidity of the intestinal contents, and mineral acids fail, as they occasionally do, the next best treatment is that by alkalies, of which the mist. cretæ aromat. c. opio is the best example. (See 'Cholera.')

**Opium.**—Where there is acute pain and much irritation of the bowel chlorodyne or some other form of opium or morphia acts like a charm in allaying the symptoms, or morphia suppositories may be used.



**Naphthalene**, gr. ij., in pill form is an intestinal antiseptic useful in chronic forms of diarrhoea.

**Salol** in doses of gr. v. to gr. x. may be administered in similar cases.

**Mercury**.—Calomel gr.  $\frac{1}{10}$  or hyd. c. cret. gr.  $\frac{1}{6}$  given frequently is excellent for the summer diarrhoea of children. They act as alteratives, and induce healthy action in the bowels.

**Ol. Ricini**.—It is a common practice in an early stage of the complaint to administer a full dose of oil, ℥ss. to ℥j., with ℥v. to ℥xx. of tinct. opii, for diarrhoea, to remove any irritant. In doses of 2 to 5 drops, castor oil, given hourly, is a valuable remedy for diarrhoea of infants.

**Rhubarb** is employed in the same way, and is an excellent correlative for children :—

Pulv. rhei	.	.	.	.	.	gr. xx.
Pulv. sodii bicarb.	.	.	.	.	.	gr. xx.
Spt. myrist.	.	.	.	.	.	℥ss.
Aquæ	.	.	.	.	.	℥iss.
℥j. occasionally.						

**Lactopeptine**, or pepsin, should be advised when diarrhoea is the result of deficient or perverted digestion, when the food passes through the bowel in an undigested or partly digested state. Peptonised foods may also be given at the same time.

**Charcoal**.—When flatulence is a marked symptom charcoal is indicated. It may be combined with bismuth, given in large doses, in the diarrhoea of consumption or wasting diseases.

**Quinine**, in full doses, is the remedy in cases of diarrhoea of malarial origin.

**Coto Bark**, or Cotoin.—℥x. of the tinct. coto is an excellent astringent remedy. Ext. belæ liquid. ℥j. to ℥ij., tinct. catechu ℥ss. to ℥j., dec. hæmatoxyli ℥ss. to ℥j., are also astringent remedies useful for diarrhoea. Logwood is specially indicated in chronic cases.

**Injections**.—On the principle of deodorising the rectum,

hot antiseptic rectal douches of weak solutions of carbolic acid, pot. permang., hyposulphite of soda, naphthalene, and other drugs, have lately been used with considerable success in obstinate cases.

Pil. plumbi c. opio gr. iv. is one of the most effective astringents in severe cases of diarrhœa.

## DIPHTHERIA.

Diphtheria is one of the diseases caused by the germs originating in decomposing sewage matter, which are very virulent and poisonous. The presence of diphtheria in a house is a warning of unsanitary surroundings—a warning which should always be followed by prompt action in inspecting the drainage.

Diphtheria is a disease common to all animals. It is most fatal to birds, such as pigeons or fowls ; it also attacks cats, dogs, and other animals. Human beings, especially children, take it readily.

The disease attacks the throat principally. The earliest symptoms are depression, hoarseness, swelling of the glands of the throat ; afterwards the characteristic white membrane forms in patches on the tonsils and back of the throat, and from this centre the system is rapidly contaminated and poisoned. Unless checked by appropriate treatment the fungoid condition extends until the air passages are reached, or until the poison in the blood has become so concentrated as to destroy life.

### TREATMENT.

**Isolation.**—When a case of diphtheria occurs in a house the defective drains must first be attended to. The people who are well should be transferred to a healthy house, for prevention is better than cure.

**Diet.**—It is most important to well sustain the patient's strength by a nourishing liquid diet. Eggs beaten up in milk, beef tea thickened with rice or barley, milk puddings or custards, ice to allay thirst or sickness, are suitable. Alcohol

is necessary to support the patient's strength after the acute stage has passed or if the condition is critical.

**Eucalyptol Vapour.**—It is always a good plan to purify the atmosphere of the sick-room in cases of diphtheria. The best way to do this is to use a bronchitis kettle, to the water in which, ʒj. of ol. eucalypt. should be added.

**Sulphur.**—Precipitated sulphur, given in syrup or glycerine, in gr. iij. doses every hour, is highly spoken of, and so is sulphurous acid diffused through the air by burning sulphur in the room.

**Salt Fomentations.**—Hot flannels wrung out of a saturated solution of common salt give great relief to symptoms.

**Lactic Acid.**—A spray or paint composed as follows has been used to dissolve away the membrane :—

Acid. lactic.	.	.	.	.	.	ʒiiss.
Aquæ	.	.	.	.	.	ʒx.

**Vin. Pepsin.**, applied warm, with the same view, has been recommended.

**Iron.**—The tinct. ferri mur. in large doses, combined or not with potass. chlorate, is the routine method of treatment.

**Tracheotomy.**—The operation of opening the throat is sometimes necessary to prevent the risk of suffocation. It is the last resort, and few survive it.

**Antitoxin.**—This, which is the poison of the disease, modified by being passed through the body of the horse, has been recently introduced as a means of destroying the virulence of the poison in the human body, and it promises to supersede all other internal treatment.

After recovery from diphtheria, paralysis of the muscles of the throat and of the limbs is not infrequent ; but it is not lasting, and passes off under treatment by nerve tonics, &c.

## DYSENTERY

is a form of diarrhœa, characterised by slimy and bloody stools of offensive odour, with very frequent desire to evacuate

the bowel, and great straining and pain in doing so. It is the large bowel—the lowest part—that is affected in dysentery. It is essentially a disease of warm climates, where it is very common and very fatal, and it is brought on by malarial influence. It comes on with griping and desire to go to stool. The evacuations gradually become scanty, then mucous and bloody. There is fever, quick pulse, great thirst. Recovery is tedious, and the bowels continue irregular for a long time. Sometimes they never recover their tone.

#### TREATMENT.

**Hygiene and Diet** are the same as in diarrhoea, and must be rigorously enforced.

**Castor Oil.**—In an early stage a dose of castor oil with laudanum is highly recommended for removing the offensive matter which accumulates in the bowel.

**Ipecacuanha.**—This is the remedy in vogue in India, given in large doses—5 or 6 grains repeated frequently. Some practitioners give it in doses of 20 or 30 grains with the best results. When so given, it is previously deprived of its emetine, and this does not seem to affect its remedial value.

**Opium** is, no doubt, the sheet anchor in the treatment of dysentery. It may be given either alone or as pulv. ipecac. co. or pil. plumbi c. opio, or, perhaps best, combined with other astringents as kino, catechu, or coto, and it is advisable to give it rather in small and frequent doses—5 to 10 minims tinct. opii—than in larger doses. Morphia suppositories are a very effective means of administering this remedy.

**Bael** is a favourite Indian remedy, most suitable where the disease is of a chronic type.

**Injections** are a valuable means of treating dysentery. They are specially useful in bringing away offensive collections in the bowel. For this purpose plain tepid water cautiously thrown up is best. To act on the affected surface, ipecacuanha has been used—3j. diffused through Oj. tepid water. Starch with tinct. opii is also employed. This should be used in small quantity—a few ounces—to ensure its retention in the bowel.

**Copper.**—This is an invaluable astringent in chronic cases. The following is the recipe of a medical man who had an extensive experience in India, and whose *clientèle* in this country consisted mainly of retired Indians :—

Cupri sulph. . . . .	gr. $\frac{1}{4}$
Quininæ sulph. . . . .	gr. iiss.
Ext. opii . . . . .	gr. $\frac{1}{4}$
Ext. gentianæ . . . . .	gr. iss.

Misce.

Ft. pil. tales xxiv. Sig. One thrice daily.

**Convalescence.**—During this stage great care must be exercised in regulating the diet and regimen, and one of the vegetable tonics should be taken, such as calumba, quassia, gentian, or cusparia. The infusions alone or with an equal quantity of lime water added, form a favourite tonic with old Indians.

The complaint is very apt to return on any exciting cause.

## DYSMENORRHŒA.

Difficult menstruation occurs chiefly in women of nervous temperament. Sometimes the pain occurs a day or two before the period, and ceases when the flow comes on ; at others the pain comes with the flow.

### TREATMENT.

Pot. bromid.  $\mathfrak{z}$ ss. n.m.que is the best sedative, with hot applications over the abdomen while the pain continues ; and between the periods, open-air exercise daily, nourishing diet, general tonics, and an aperient, if required, constitute the appropriate treatment.

## DYSPEPSIA

—from *dys*, difficult, and *pepso*, I digest—means, primarily, difficulty of digestion ; but the term is applied generally to all gastric or stomachic disorders and inefficiency. It is the



function of the stomach to ferment the food, and anything that interferes with this process of fermentation may be a cause of dyspepsia. It would be impossible to describe all such causes. The kind and the quantity of the food taken, the manner of taking it, the ability of the stomach to deal with it, and the general condition of the system, and especially of the nervous system, may each play a part in bringing it on. It would be alike impossible to catalogue the various forms and symptoms of this truly protean complaint, as it manifests itself in different cases—from the atonic dyspepsia caused by simple debility, and characterised chiefly by loss of appetite, to the severer forms caused chiefly by errors of diet, and marked by the symptoms of uneasiness and pain after eating—acidity, flatulence, palpitation, &c., and those of a more obscure but probably nervous origin, arising from mental worry and excitement, sedentary habits, &c.; these last manifesting themselves generally by the symptom of acute and even agonising pain, as of a cramp or spasm or gripe, or of all three combined, occurring with little or no premonitory notice, continuing for a shorter or longer time, sometimes many hours, and disappearing in the same way as it came. This last form is called gastralgia or gastrodynia, and is often characterised by occurring when the stomach is empty, and by being relieved on taking food.

Dyspepsia has almost always a direct and marked influence on the other organs of the body. The bowels and the kidneys become irregular in their action, the heart becomes subject to palpitation owing to the stomach being dilated to an abnormal extent and pressing on that organ, the mind becomes depressed and the temper irritable.

#### TREATMENT.

**Diet and Regimen.**—Food should be light and sparing, and, above all things, taken at due and regular intervals, well masticated, and all exertion of body or mind for some time afterwards avoided. Milk diet is always best, and in severe cases quite necessary. Fish and white meat, fowl, sweet-

breads, tripe, and mutton should be taken in preference to beef. Spirits in moderation in preference to fermented liquor. Tea and coffee should be taken in moderation or replaced by cocoa. But as 'one man's meat is another man's poison'—for the stomach is a most capricious organ, and will in some cases reject not only the article of food, but also the mode of cooking it, which in other cases it prefers—it is important that every dyspeptic patient should find out what agrees best with him and keep to it. Open-air exercise daily is all-important.

**Salt.**—Sufferers, while avoiding salted or cured foods, should never omit to take a sufficiency of salt with their meals. It is an ingredient which the organism utilises to work up into hydrochloric acid.

**Aperients.**—Constipation is a frequent symptom of dyspepsia, and must always be attended to. Cascara is valuable in this respect, or a simple aperient pill, which should contain a mild mercurial or podophyllin and nux vomica, and it should be followed by a saline draught in the morning. Aperients carry off irritating secretions and imperfectly digested food. The following are examples :—

Hyd. c. cret.	.	.	.	.	gr. iss.
Pil. rhei co.	.	.	.	.	gr. ij.
Ext. hyos.	.	.	.	.	gr. ss.
Misc. H.s.s.					

Ext. col. co.	.	.	.	.	gr. ij.
Ext. hyos.	.	.	.	.	gr. ss.
Ext. nuc. vom.	.	.	.	.	gr. $\frac{1}{4}$
Misc. H.s.s.					

Podophyllin.	.	.	.	.	gr. iv.
Ext. belladonnæ	.	.	.	.	gr. iiij.
Pil. col. co.	.	.	.	.	3ss.
Misc.					

Div. in pil. xx. One every second or third night.

**Bismuth** is the most reliable of all agents in treating dyspepsia. It acts as a sedative tonic, and very generally gives relief to the feeling of uneasiness and pain. It is given

plain, as the subnitrate or carbonate or as the liquor, or it may be given along with morphia or acid. hydrocyan., the former when there is much pain or tendency to diarrhœa, the latter when there is nausea or vomiting. It is also given along with sp. ammon. ar. or pot. brom., when there is nervous disturbance, and it is frequently combined with the alkalies and with rhubarb. The best time to administer bismuth is shortly after eating. The following are examples :—

Acid. hydrocyanic. dil. . . . . ℥xxiv.  
 (vel Liq. morph. hydrochlor. ℥j.)  
 Liq. bismuth. ad . . . . . ℥j.  
 Misce.

A teaspoonful in water every two or three hours.

Bism. subnit. . . . . ℥ij.  
 Sodii bicarb. . . . . ℥ij.  
 Pulv. cinnam. co. . . . . ℥j.  
 Pulv. rhei . . . . . gr. xxiv.  
 Misce. Div. in pulv. xij.

One three times a day shortly after eating.

Ext. nucis vomicæ . . . . . gr.  $\frac{1}{4}$   
 Pepsin . . . . . gr. ij.  
 Bismuthi subcarbonat. . . . . gr. x.  
 Misce. Fiat tab. vel chart. Mitteque xij.

One tablet or powder before and after eating.

Ext. nucis vomicæ . . . . . gr.  $\frac{1}{4}$   
 Ext. pancreatini . . . . . gr. iss.  
 Bismuthi subcarbonat. . . . . gr. x.  
 Misce. Fiat tab. vel chart. Mitteque xij.

One tablet or powder before, and one two hours after, meals.

The first of these last two formulæ will be found available when the fault lies with the stomach, the second when intestinal digestion is deficient.

Bismuth. carb. . . . . gr. 80  
 Magn. carb. . . . . gr. 80  
 P. tragac. co. . . . . ℥j.  
 Tr. nucis vom. . . . . ℥j.  
 Aquæ ad . . . . . ℥vii.  
 Misce. ℥j. ter die ante cibos.

Bismuth. subcarb. . . . .	ʒij.
Sodii bicarb. . . . .	ʒij.
Tinct. cardam. co. . . . .	ʒiv.
Spt. chloroformi . . . . .	ʒiss.
Aq. menthæ pip. ad . . . . .	ʒvj.

Ft. mist.

Cap. ʒj. ter in die.

A convenient form for using bismuth is the lozenge or tablet. It can be carried in the pocket, and used at the very earliest advent of the symptoms.

**Acids.**—The dilute mineral acids, and especially the nitro-hydrochloric, in doses of  $\mathfrak{m}\mathfrak{x}$ . to  $\mathfrak{m}\mathfrak{x}\mathfrak{x}$ ., combined with  $\mathfrak{m}\mathfrak{v}$ . of tincture of nux vomica or with ʒj. of a bitter tincture or the same quantity of suc. taraxaci, taken before meals, exert a curative effect by going to the root of the evil—that is to say, they restore to the stomach its natural acids, and they act besides as bracing tonics. Dilute phosphoric acid  $\mathfrak{m}\mathfrak{x}$ . in water may suit old people best. When there is much gastric disturbance or diarrhœa, sulphurous acid  $\mathfrak{m}\mathfrak{x}$ . to  $\mathfrak{m}\mathfrak{x}\mathfrak{v}$ . every four hours acts better because it has greater power of arresting fermentative changes. Generally speaking, it may be said that acid mixtures are indicated in cases of gouty dyspepsia and dyspeptic weakness, when gastric juice is feeble in digesting power and lacking in hydrochloric acid. The following are typical and reliable mixtures :—

Acid. nit. hyd. dil. . . . .	ʒij.
Tr. nuc. vom. . . . .	ʒj.
Tr. capsic. . . . .	$\mathfrak{m}\mathfrak{l}\mathfrak{x}\mathfrak{viii}$
Syr. aurant. . . . .	ʒj.
Aq. m. p. ad . . . . .	ʒviiij.

ʒss. t.d.s. a.c. ex aq.

Acid. hydrobrom. dil. . . . .	ʒij.
Liq. strychninæ . . . . .	ʒj.
Glycerini . . . . .	ʒss.
Tr. aurantii . . . . .	ʒiiij.
Aq. ad . . . . .	ʒvj.

Misce.

Dose : One tablespoonful thrice daily before food.

**Alkalies.**—Soda, potash, lime, and magnesia are all much employed in treating dyspepsia. The bicarbonates of the first two, in doses of 30 to 60 grains, are useful to correct acidity and heartburn, but only as palliatives and for occasional use. Soda-mint tabloids are a convenient form for administering soda in small doses. When the acidity is located in the bowels, alkalies are not only better than acids, but are curative : magnesia gr. x. with bismuth subnitrate gr. x. will give satisfaction. If there is tendency to diarrhœa the magnesia should be replaced by carb. calcis. Lime water taken freely is a good alkaline remedy for intestinal acidity if accompanied by diarrhœa, and it is an indispensable addition to the milk when that forms the staple of diet, as it renders it much more digestible. Alkalies are often combined with rhubarb and ginger, as in the p. rhei co. of the Pharmacopœia, or with calumba and other bitters or aromatics, and this combination is excellent for habitual use in simple gastric derangement.

The following are examples :—

Sod. bicarb.	.	.	.	.	gr. 80
Inf. gent. co. conc.	.	.	.	.	ʒj.
Aq. menth. pip. ad	.	.	.	.	ʒviij.

Misce.  $\frac{1}{2}$  ter die at 11, 3, and 7.

Potass. bicarb.	.	.	.	.	ʒij.
Tr. nuc. vomicæ	.	.	.	.	ʒij.
Inf. calumbæ ad	.	.	.	.	ʒvj.

Misce. ʒss. ex aq. before luncheon and dinner.

Pulv. rhei	.	.	.	.	gr. v.
Pulv. cuspariæ	.	.	.	.	gr. x.
Sodii bicarb.	.	.	.	.	gr. x.

Misce. Ft. pulv. tales xij.

One twice a day.

**Pepsine, Lactopeptine, Pancreatine, Ingluvin, and Papain** are a class of remedies representing the natural digestive secretions, and are given when these are deficient in digestive power. There can be no doubt of their value in many cases, but a recent writer has pointed out a danger



which may attend their excessive or indiscriminate use. By supplying the secretions to the organs whose part it is to produce them, the ability of these organs to perform their natural function may in course of time become weakened or destroyed.

**Carminatives.**—This is a class of remedies which relieve pain and uneasiness by dispelling flatulence, and they act both on the stomach and bowels. It is best to combine an alkali with them to correct acidity. Peppermint is the best of this class of remedies. When its odour is objectionable we have ginger or capsicum or any other of the aromatic spices. Sp. am. ar. or ether. chloric. makes an excellent addition, or one of the bitter tinctures, as calumba or gentian.

**Tonics** are quite useless when the secretions are disordered, but when these have been set right, and in atonic dyspepsia, where loss of appetite is the prominent symptom, the vegetable bitter tonics will be found beneficial taken half an hour before meals. Quinine in small doses may be used, or quassia, calumba, gentian, or chiretta may be given in the form of infusion, and they may be combined with small quantities of the acid or alkaline remedies, or with nuxvomica :—

Acid. sul. dil.	.	.	.	.	ʒij.
Inf. quassiae	.	.	.	.	ʒvj.
				Misce.	

ʒss. ter die ante cib.

Acid. phosph. dil.	.	.	.	.	ʒiv.
Liq. strychn.	.	.	.	.	℥xxx.
Inf. calumb. ad	.	.	.	.	ʒvj.
				Misce.	

ʒss. t.i.d. between meals.

**Arsenic**, in the dose of gr.  $\frac{1}{20}$  t.d.s. and continued for several weeks, is highly spoken of as curative in severe cases of gastralgia.

**Pot. Bichromat.** gr.  $\frac{1}{10}$  in pil. t.d.s. has a remarkably good effect in many similar cases. Oxide of silver is also employed.

**Glycerine**, in doses of ʒj. to ʒij. in a little water t.d.s., is highly recommended by good authorities for the same purpose.

It is often necessary to employ morphia and hydrocyanic acid to relieve the urgent symptoms in this form of the complaint. The following are formulæ of two specialists :—

Liq. morphiæ hydrochlor.	.	.	.	ʒij.
Acid. hydrocyan. d.	.	.	.	ʒj.
Aq. chloroformi ad	.	.	.	ʒvj.

Misce.

Dose : ʒss. three or four times daily.

Bismuth. carb.	.	.	.	.	ʒiv.
Sodii bromidi	.	.	.	.	ʒiv.
Acid. hydrocyan. dil.	.	.	.	.	ʒj.
Sp. ammon. arom.	.	.	.	.	ʒiss.
Liq. opii sedativ.	.	.	.	.	ʒj.
Aquæ ad	.	.	.	.	ʒvj.

Misce.

Sig. : ʒss. ex cy. aq. qq. tertia vel quartâ hora.

**Stomach Washing.**—It is a familiar fact that in certain cases of painful digestion free vomiting gives immediate and entire relief. Following up this idea a French doctor suggested the evacuation of the stomach, by mechanical means, of its contents when these consisted of acrid and irritating matters, and the practice has become somewhat general in recent years, and with very favourable results. The process is accomplished by means of the ordinary stomach pump, or by means which may be extemporised with a simple flexible tube and a funnel (as described further on). It is necessary that the operation should be performed at first by a medical expert, but afterwards the patient will be able to manage it himself quite readily without assistance ; and it is no unusual thing for the dyspeptic victim to prize his ‘tube’ as a ‘vade mecum,’ and to have recourse to it as occasion may require, with the happiest results.

The remedy is specially useful when there is much dilatation, and for clearing the stomach of abnormal secretions and

indigestible portions of food, and it promises to revolutionise the method of treatment of such cases. The following is a description of the *modus operandi* with which it will be useful and interesting to the chemist and druggist to be acquainted. The apparatus consists of a soft thick-walled indiarubber tube, about six feet long. To one end of this a large-sized glass funnel is firmly fixed. The other end is dipped in glycerine, and the patient is directed to swallow it. When the swallowing has commenced, a little gentle pressure passes the tube on to the stomach, which it will have reached when rather less than half its length has disappeared. Some water is then poured into the funnel, and while it is yet full it is quickly depressed into a basin. The tube being now filled with water, and the funnel end being lower than the stomach end, a syphon action is established, and the stomach is rapidly and easily emptied. When the flow has ceased, a couple of pints of warm water ought to be poured into the stomach and likewise returned, and this should be repeated until the water comes away again practically pure.

## EARS (CARE OF).

Cases of deafness are of two kinds—those which are curable, and those which are hopeless. Among the latter may be included the loss of hearing following severe ulceration of the deeper parts of the ear.

An exquisite little mechanism is the auditory apparatus with its minute drum, its delicate chain of bones, and the shell-like battery holding the nerves of sound. It is a veritable telephone in miniature, and far more perfect.

Temporary deafness may be caused by chills, rheumatism, loud noises, blows on the ears, wax accumulations, catarrh of the Eustachian tubes, or by the prolonged use of quinine and salicin.

Permanent deafness is almost invariably the outcome of deep inflammations resulting from injuries or acute fevers.

These destroy the delicate structures which are occupied in transmitting sound vibrations.

#### TREATMENT.

The heads and ears of children should always be wiped perfectly dry after they are washed. Parents, nurses, and others should be strongly cautioned as to the great danger which arises from boxing the ears, a practice which is quite likely to rupture the drum. It is dangerous to irritate the ears by putting into them the ends of penholders, wooden matches, and especially pins.

**Remove Accumulated Wax.**—The object of the wax secreted in the outer ear is to lubricate the passage and improve the penetration of sounds from without. This wax sometimes gets hardened into a mass, and blocks up the passage, retarding or preventing the transmission of sound. In this case the patient should be directed to drop equal parts of almond oil and glycerine into his ear every night for a few days until the mass is softened, and then careful syringing with warm water and soap will quickly remove it.

**Ung. Hydrarg. Oxid.**—Eczema and other eruptions occasionally extend to or attack the outer ear-orifice, and ung. hydrarg. ox. rubri gr. iv. to ʒj. will generally suffice to cure it.

**Calcium Sulphide.**—Some persons are prone to suffer from boils in the ear. These are exceedingly painful, and cause temporary deafness. Calcium sulphide gr.  $\frac{1}{10}$  or more t.d.s. is the best remedy to effect a cure. For discharges affecting the ear "sanitas" diluted is an excellent injection to use.

**Ammonium Chloride Inhaler.**—The middle ear is a small cavity, and its air pressure is regulated by the Eustachian tube, which descends to open at the back of the nose. Catarrh of the nose or throat will generally extend to this tube and block it, producing throat deafness. The prolonged use of a chloride of ammon. inhaler is the best treatment for this.

**Cocaine &c.**—A 2 or 4 per cent. cocaine spray affords great relief in acute earache of agonising character. Other remedies are probably better in less acute forms. Hot applications (a very good plan for effecting which is to lay the affected side of the head on a hot-water bottle), a few drops of almond or olive oil, with an equal proportion of laudanum, or with 20 per cent. of chloroform or menthol or camphor, and a host of other remedies are all of greater or less efficacy in relieving earache. People subject to earache have been completely cured of the liability by habitually keeping a little bit of cotton wool in the ear.

**Iodoform.**—Where there is discharge coming from an ulcerated middle ear the ears should be carefully syringed each day with sanitas and warm water, and then a little iodoform blown in by means of an insufflator. Inflammations affecting the deeper parts of the ear may be of so disastrous a character that it is always wise for patients at once to consult a skilled practitioner.

## ECZEMA.

The skin is an inverted lung—an active, freely secreting organ. It is liable to colds and catarrhs. ‘Eczema’ is the name applied to catarrhal inflammation of the skin. In its acute stages it burns and weeps. In the chronic forms it is scaly and intensely itchy. Both forms are hard to put up with, and give rise to much suffering and broken rest. A catarrh is bearable when it seeks its usual site—the mucous membrane of the upper respiratory passages. The skin is not accustomed to such an infliction, and tolerates it badly.

The forms of eczema are so varied and numerous, and the causes so multifarious, that it becomes a real difficulty to cure an obstinate case unless experience shows the way. The old-fashioned solace that it is dangerous to drive it in is out of date. It is better to use a remedy which you are certain will do good, when you find one, than one of which you are doubtful.



## TREATMENT.

**Diet.**—As a rule, those who suffer from eczema should restrict their allowance of animal food, especially if there is any gouty tendency. Ripe fruit and green vegetables are decidedly useful. Alcohol and wine are prejudicial, often highly so.

**The Dry Method.**—‘Wash not at all’ is the first commandment in acute eczemas. The free use of hot water to relieve the itching is almost always prejudicial. It does relieve the itching for a time, but this invariably returns with greater virulence than before.

**Effervescent Salines.**—Effervescent mixtures or citrate of magnesia by cooling the blood are occasionally of service in acute eczema.

**Aperients** are often called for in those who are full-blooded or those who suffer from habitual constipation. The best form of aperient to give is :—

Mag. sulphat.	.	.	.	.	ʒvj.
Sodii bicarb.	.	.	.	.	ʒj.
Inf. gent. co. ad	.	.	.	.	ʒvj.
ʒj. t.d.s. ante cib.					

**Arsenic.**—Medical men in general have great confidence in arsenic in the treatment of eczema. In some cases it increases the irritation at first, but it must be persevered with for several weeks, until its curative effects are produced. It is best given as liquor arsenic. ℥iij. to ℥v. t.d.s.

**Bromides**, given internally in doses of gr. iij. to gr. vj., or combined with glycerine and rubbed on the gums, are useful in the infantile eczema of teething children.

**Compression** is indicated in eczema of the abdomen or genitals. It relieves the congestion and arrests effusion.

**Massage.**—In subacute and chronic eczema suitable massage rouses the activity of the lymphatic absorbents and improves the general health.

**A Mustard Leaf** or a stimulating ointment to the abdomen has been suggested to draw away eczema from exposed parts.

**Resorcin** is a good outward application in the greasy or seborrhœic forms of eczema, of which dandruff is an example. The following is a favourite remedy :—

Resorcin	℥.	.	.	.	.	3j.
Vaseline	.	.	.	.	.	3iij.
Powdered starch	.	.	.	.	.	3ij.
Powdered zinc oxide	.	.	.	.	.	3ij.
Salicylic acid	.	.	.	.	.	gr. v.

To make a paste.

**Zinc Oleate.**—In acute eczema the zinc oleate may be used as a dusting powder. It is an impalpable powder of unctuous touch, and is very grateful to some sufferers. Powdered boric acid or creta gallica mixed with p. amyli part. æqual. in fine silken powder is also a good dusting powder to use.

**Ol. Cadini** or ol. rusci pyroligneum painted on the affected parts every day or two is very efficacious in some cases, but the smell is objected to.

**Sulphur**, in the form of a paste, made by mixing equal parts of sulphur and vaseline, or as a lotion. Sulphur is indicated in those forms of eczema which are scrofulous in character, and have a tendency to become purulent. In true eczema it frequently aggravates and irritates the rash.

**Balsam of Peru** or **Tinct. Benzoini Co.**, painted on with a brush in infantile forms, sometimes succeeds.

**Liq. Carbonis Detergens** is largely prescribed by specialists in obstinate inveterate cases which require stimulation. It should be diluted with several parts of alcohol or water.

**Ung. Zinci** is useful in simple uncomplicated cases due to injury or sun, and it is an improvement to have it mixed with an equal quantity of liniment. calcis. Equal parts of ung.

zinci and ung. hydrarg. ammon. make a useful ointment in the parasitic forms of eczema or in contagious impetigo.

**Bismuth.**—The following ointment will be found useful in cases of eczema of the head or behind the ears in children :—

Zinc oxide	.	.	.	.	.	ʒj.
Bismuth subnitrate	.	.	.	.	.	ʒj.
Vaseline	.	.	.	.	.	ʒj.

## EPILEPSY.

No nervous disease is more dreaded than epilepsy. Its origin is still a mystery. In its severe forms the patient utters a peculiar shrill cry and falls to the ground. His muscles are violently contracted or convulsed, he foams at the mouth, and always bites his tongue. Often he sleeps a while after a fit, and when he awakes he recollects nothing of what has happened.

Epilepsy is generally regarded as hereditary, but there are many exciting causes—debility, excessive excitement, and vicious indulgence of any kind.

### PREVENTION AND TREATMENT.

**Stopping a Fit.**—The warnings that patients have of an approaching fit are usually too brief to allow of measures being taken. Occasionally, however, a warning or aura is felt. This may present itself in various ways, as by a headache, or a feeling of cold water or air running up a limb ; when it stops a fit occurs. If a ligature is tied tightly round the part or a blister put round the limb the attack may be prevented.

**Exercise.**—Regular exercise, short of fatigue, is beneficial. Rest and change of scene and the indulgence of a hobby are good. Too severe exertion, mental or bodily, may determine a fit. Both the mind and the body require much rest. Patients should sleep with the head high, and on a low bed, in case of any injury from a fit occurring during the night, and the patient falling out of bed.

**Diet.**—A purely milk diet or a vegetarian dietary will cure

some cases and benefit all. Above all, the stomach should never be overloaded. Diseased teeth should be attended to ; they are an occasional exciting cause of epilepsy.

**Circumcision.**—This operation has cured cases depending on perverted conditions of the sexual organs.

**Bromides.**—There can be no question as to the controlling influence of bromide given regularly in full doses—10 to 20, 30, or even 40 grains t.i.d.—and continued for a long time, months and even years. The patient comes to realise its value, and will be slow to discontinue it. It is advisable to administer arsenic at the same time, to obviate any ill effects from its use.

**Borax.**—When the fits occur at night biborate of soda is an excellent remedy. It does not act well in diurnal seizures, when bromides are indicated.

The salts of zinc, iron, and silver have all been given to prevent the recurrence of the fits, and the two former at least are beneficial as tonics for the general system.

## ERYSIPELAS.

The features of erysipelas are redness (hence its common name, 'Rose'), with a burning, swollen condition of the skin, and a tendency to spread over and beneath it, accompanied by general fever. As the disease advances there may be a discharge of matter or desquamation of the skin. Two forms of erysipelas are recognised—the one a purely constitutional disease attacking chiefly the head or face, the other a local disease occurring secondarily as a result of a recent wound or injury of some kind. Any healthy wound may become infected by the virus of erysipelas. In its severe forms it is a highly dangerous disease calling for prompt medical advice, and it is very infectious.

### TREATMENT.

**Hygiene.**—Those who suffer most severely from erysipelas are found to live under bad hygienic surroundings. Those

who have wounds should rigorously avoid all possibility of their erysipelatous infection.

**Diet.**—As erysipelas is a disease which markedly lowers the powers of life, a nourishing diet is essential to promote its recovery. Beef tea, meat juice, milk and eggs, and concentrated light foods should be given freely. Intemperance is a frequent cause of erysipelas, but in severe cases a moderate allowance of alcohol should not be withheld. In very critical cases a mixture containing *sp. ammon. arom.* ʒss. *c. tinct. cinchonæ* ʒss. every four hours is the best medicinal stimulant to give.

**Aconite.**—In acute facial erysipelas, *tinct. aconiti* ʒij. with *liq. ammon. acetatis* ʒj. is an excellent febrifuge medicine to promote resolution in the very early stages.

**Tinct. Ferri Perchlor.**—The most reliable remedy for erysipelas is *tinct. ferri perchlor.* in doses of ʒxx. every four hours or oftener. The tincture can at the same time be painted on the parts.

**Tinct. Iodi** should be painted round the affected part to prevent it from spreading.

**Antipyrin** is useful to allay fever if high and to diminish pain, in doses of gr. x. every four hours. It will not cure the disease; it only allays the symptoms.

**Ichthyol**, applied as *lanolinum ichthyol.* (25 per cent.), is one of the latest remedies.

**Quinine** in many cases exerts a magical action in doses of the sulphate gr. iij. every four hours. In the typhoid condition ammonium carbonate gr. v. with quinine sulphate gr. iij. or *tinct. cinchonæ* ʒss. is generally indicated.

**Calcium Sulphide** gr.  $\frac{1}{10}$  or more every four hours acts with extraordinary effect in the deeper forms of the eruption accompanied by threatened abscess. This may be supplemented by dusting the parts with sulphur or painting them with equal parts of glycerine and sulphurous acid.

**Carbolic Acid.**—A 1 per cent. solution on lint relieves pain and tension, Salol mixed with an equal part of creta



gallica is a valuable dusting powder, or boric acid with starch equal parts.

The best lotion for erysipelas is the *lotio plumbi c. opio* :—

Plumb. acet.	.	.	.	.	gr. xxxij.
Pulv. opii	.	.	.	.	gr. xxxij.
Aq. bullient.	.	.	.	.	℥viiij.
Misce et cola.					Apply on lint.

**Varnishes.**—On the principle of excluding the air certain more or less impermeable applications have been advised. Small strips of isinglass plaster applied so as to envelop the part, and flexile collodion have been suggested.

## ERYTHEMA (REDNESS).

This is not exactly inflammation, but a feeble attempt at it, a redness of the skin. It may occur on any part of the skin when deranged sympathetic nerves relax the capillary blood vessels and overflow them with blood.

Erythema is a frequent outcome of a deranged digestion or lax nerves ; flushing of the face after meals is a common symptom, especially at woman's change of life.

The worst and most persistent form of erythema is called *erythema nodosum*. Painful oval red spots of fair size appear on the front of the legs and persist for some weeks.

### TREATMENT.

**Zinc Valerianate.**—The flushing heats after meals are generally very troublesome and annoying to the sufferer. The best remedy is zinc valerianate gr. ij. t.d.s. When it fails, ammon. bromide ℥ss. night and morning, or eucalyptol ℥v. on sugar, should have a trial.

**Quinine.**—Tonics containing quinine are generally best in the severe forms, such as *erythema nodosum*, provided there is absence of fever. Chamomile fomentations can be used with it if the pain is troublesome, or the *lot. plumbi c. opio* applied on lint.

## EYES (AFFECTIONS OF).

Sight is the most valuable of all the senses, and perhaps the least taken care of. Without it we become very dependent on others.

It is singular how little attention people devote to their eyesight. When they have it good they do not realise what it means to be deprived of this faculty.

The eye is the most exquisitely beautiful of all the bodily structures. It is the wonder and the standard of opticians. The very delicacy of its mechanism makes it sensitive to the slightest impressions. It is like a watch, and it goes as well with careful treatment.

Reading small print in a poor light or in railway carriages, late hours and dissipated habits are ill conducive to good sight.

Defects of vision are very prevalent. They result from some defect, natural or acquired, in the shape of the lens or in the focussing apparatus. Short sight, long sight, astigmatism, and day or night blindness are examples of vision blemishes.

Conjunctivitis or inflammation of the eye is a frequent outcome of colds, of irritants within the eyelids, or of acute infectious fevers, especially measles. If uncared for, the mischief may extend to the cornea or clear part of the pupil of the eye, causing great impairment of vision. Conjunctivitis or ophthalmia is the most common of all affections of the eye.

Opacity of the lens, or cataract, inflammation of the iris or retina, and disease of any of the deeper parts of the eyeball are so serious that the immediate attention of a skilled oculist is always needed if danger of blindness is to be avoided.

A sty is a small painful boil which forms on the edge of the eyelid. It requires no treatment beyond fomentation with hot water, and carefully opening it with a needle when it comes to maturity. If there is a tendency to recur, a little general treatment by sulphide of calcium or otherwise may be required. (*See 'Boils.'*)

A bloodshot condition of the conjunctiva, which often comes on suddenly and without pain or any other symptom, as the result of cold, is best treated by fomenting with water as hot as it can be borne.

**Hygiene.**—Persons predisposed to conjunctivitis should avoid exposure to easterly winds, and should never try their eyes with small print or fine needlework, especially in artificial light. They should sit upright to read, not in a stooping position. A tired feeling about the eyes is a sure indication of the need of rest. The free use of alcohol and tobacco is very bad for the eyes.

The ophthalmia of new-born babies, or resulting from gonorrhœal infection, is decidedly contagious, and the patient or nurse should be told to use separate towels, and take all necessary precautions for isolation.

If the eyelids, owing to slight suppuration, are found sticking together in the morning, they must be carefully bathed with tepid water before attempting to open them.

**Remove Cause.**—If a speck of dust or an irritant is causing inflammation, this should be removed at once. A piece of iron in the eye is best got out by means of a magnet. Lime in the eye requires to be neutralised by means of an acid, and acids require neutralisation by alkalies. The eyes must first be well bathed with tepid water to remove as much as possible of the substance, and the remedies must be well diluted, so as not of themselves to irritate the eye.

**Spectacles.**—Defects of vision require careful adjustment of suitable spectacles. Short-sightedness calls for concave glasses, long sight for convex, astigmatism for separate glasses, to remedy the inequality of each eye's vision. In bad cases it is always best to have the sight tested by an oculist, and if the patient is poor he may with advantage be sent to one of the large ophthalmic hospitals.

**Zinc Sulphate.**—The best and safest eye lotion is made with zinc sulphate gr. ij. to ℥j. of rose water. To this a little vin. opii may be added if pain is complained of. Salts of lead should never be used except by an oculist, for if there is any

ulceration of the cornea the salt may deposit and permanently injure sight.

**Hydrarg. Perchlorid.**—When there is a feeling of smarting in the eyes, and congestion within the eyelids, a lotion of hydrarg. perchlor. gr. j. to ℥vj. aq. destill. will be found an unfailing remedy. It should be used mixed with an equal quantity of hot water.

**Argent. Nitras.**—As a rule solutions of nitrate of silver should be avoided in eye affections, but they are probably the most effectual remedies in cases of ophthalmia of new-born infants and in gonorrhœal forms. A solution of gr. ij. to iv. in ℥j. should be used for this purpose, and a single drop applied once a day.

**Atropine.**—A solution of sulph. atropine gr. iv. to ℥j. (or atropine gelatine discs) is most valuable in painful forms of eye inflammation complicated with corneal ulcers or inflammation of the iris or pupil. Atropine dilates and rests the pupil muscles. *Eserine* gr. ij. to ℥j.—the alkaloid of Calabar bean—which contracts the pupil, is more beneficial in some cases of inflamed cornea.

**Mercury.**—Mercurial preparations are largely used in diseases affecting the eye. Calomel dusted over the conjunctiva is a valuable treatment for a variety of ophthalmia characterised by the presence of a number of little seedlike elevations, which cause great irritation of the superficial eye structures; and the ung. hydrarg. subchlor. is used by many oculists for anointing the edges of the eyelids h.s. when there is tendency to suppuration. The nitric oxide of mercury ointment gr. viij. to ℥j. is also very serviceable in cases of sore eyelids. The following is excellent for ringworm of the lids and for any form of superficial inflammation:—

Hydrarg. ox. flavi . . . .	gr. viij.
Atropiæ sulph. . . . .	gr. j.
Vasellini . . . . .	℥j.

It is important to use the yellow oxide, as the crystalline structure of the red variety may cause mischief to the eye.

**Blisters** behind the ear are commonly used as a counter irritant in obstinate cases of eye affections in children, and frequently with great benefit. In very severe acute forms of eye inflammation, leeches to the temple or other surrounding parts are still occasionally resorted to. The piercing of the ears for earrings is thought to improve the sight.

**Ammon. Bromid.**—Where the eyes are tired from over-reading or from want of sleep the bromide of ammonium (3ss. doses) is a good remedy.

**Potass. Iodid.**—In eye affections caused by gout, rheumatism, or syphilis, potass. iodid. gr. v. combined with liq. hydrarg. perchlor. ℥xx., or vin. colchic. ℥x., are the remedies indicated. Syr. ferri iodidi, sulphur, and cod liver oil are the best preparations to remove constitutional weakness causing disease of the ocular structures, such as strumous ophthalmia or corneal ulcers.

**Cocaine.**—A 4 per cent. solution of cocaine hydrochlorate is largely used to arrest acute pains in the eye, and so allay the hypersensitiveness of the organ, in order that specks of dust and foreign bodies may be removed, or slight operations performed without pain or resort to a general anæsthetic.

## FAINTING

is caused by a temporary cessation of the heart's action owing to pain, loss of blood, a hot, crowded atmosphere, or any strong emotion. Persons of an excitable temperament or with weak circulation are most subject to it, and women more so than men. When caused by any organic affection of the heart itself, it is a very grave affair; but in the generality of cases, however distressing, it gives no occasion for alarm.

### PREVENTION AND TREATMENT.

To prevent a fainting fit, if it gives any warning—for frequently it does not—place the patient in a prostrate position and with the head not higher than the body, and administer ʒj. sp. ammon. ar. in a glass of water, or brandy, or if these



are not available, then cold water, and apply smelling salts to the nostrils. When the patient is under the fit admit fresh air, loosen the dress, sprinkle cold water on the temples, and have recourse to the stimulating treatment described above. Persons subject to fainting fits should lead a quiet life, avoiding over-fatigue and excitement, and from time to time pursue a course of treatment by tonic remedies, notably iron.

## FEET (CARE OF THE).

The lower extremities are the stay and support of the whole body, and they are liable to a variety of disorders, partly because everyone is bound to use them, and partly because they are so far removed from the heart that the circulation in them is sluggish.

The feet require to breathe just as much as other parts of the skin. Breathing of the skin means free outlet for its perspiration.

When cased in impervious leather which prevents the proper action of the freely acting pores of the soles, the feet become icy cold in winter time, and in the summer months burning, swelling, and free perspiration are the features of their condition.

**Exercise.**—The best remedy for cold feet—the result of a languid circulation—is bodily action, brisk walking in the open air.

**Woollen Socks.**—To prevent cold feet warm woollen socks or stockings should be worn. Stockings ought to be kept up by suspenders, and not by tight garters, which obstruct the circulation.

In extreme cases of cold extremities two pairs of socks may be worn, and this is equally applicable for cold hands; two pairs of warm gloves, one over the other, will keep the hands warm and cosy when one pair fails to do so.

To prevent excessive perspiration of the feet, socks should be changed daily.

**Boots.**—Those who are on their feet a great deal, such

as policemen, postmen, and others, require to change their boots and socks frequently, otherwise aching and soreness of the feet become marked. No two pairs of boots are exactly alike—they support the feet at different points, and it is owing to this that changing them is helpful.

The Jaeger boots contain a ventilating sole, are very comfortable, and remove perspiration by giving exit to it freely.

Those with cold feet should have their boots warmed before going out, and canvas shoes make the best slippers over warm socks.

**Warm Foot Baths.**—Warm pediluvia, to which Condyl's fluid or sanitas may be added, afford immense relief for the burning aching of the feet resulting from a hard day's work. This form of bath rouses the weak circulation in the feet and draws it from the deeper parts.

The feet should be washed every day in warm or tepid water. It is more necessary to wash the feet than the face, but as they are unexposed they are apt to be neglected.

**Turkish Bath.**—The best possible remedy for fetid perspiration of the feet is the regular taking of Turkish baths. They open all the pores of the skin and take extra work off the feet. Warm foot baths with a few drops of carbolic acid may be employed with benefit.

**Salicylic Suet.**—Salicylic lard or suet (1 to 50) applied to the feet tends to deodorise secretions and to heal sores or blisters. It is largely used in the German army.

**Arnica.**—A lotion composed of tinct. arnicæ 1 part, aqua camph. 8 parts, allays burning and perspiration of the feet effectually.

**Belladonna.**—One of the chief actions of this drug is to check perspiration, and it does this whether given internally or applied locally. The liniment. belladonnæ and various other preparations of this drug are largely used for perspiring feet, but it is very questionable whether they do not do harm by suppressing a natural excretion.

**Foot Powders.**—Convenient and much used remedies

for perspiring feet are dusting powders which soothe and cool at the same time that they deodorise. For this purpose kaolin or French chalk with 2 per cent. of salicylic acid can be used with benefit. Powdered boric acid, oxide of zinc, fullers' earth, starch powder, &c., singly or combined with each other, also make excellent foot powders.

## FEVERS.

Fever is an effort of nature to eliminate an irritant. Germs and their poisonous products act as foreign irritants, and the system does its best to get rid of them. The skin, kidneys, lungs, liver, and bowels, the great eliminatory organs of waste débris, are started into increased action by a rise of the body temperature and a quickening of the circulation. The temperature rises sufficiently high to destroy the micrôbes. The more actively poisonous they are the greater is the heat required. The temperature is sustained at the expense of the tissues, which act as fuel.

Until heat has been generated sufficiently or sustained long enough, the germs accumulate quickly and clog the excretory organs; therefore, in the early stages of a fever, the skin is dry and usually covered with an eruption, the urine concentrated, and the breathing quick. When the temperature has had sufficient time to destroy the bacilli, the skin begins to perspire freely, the kidneys resume their normal functions, then the temperature falls to normal, and the weakened, emaciated patient is convalescent.

### TREATMENT.

**Diet.**—As the liver is unfitted for performing its duties in neutralising ptomaines of animal food, the diet in acute fevers should be as liberal as possible. It should consist largely of milk, eggs, and strained broths made from lean meat, mutton, and chicken. Raw beef juice is invaluable. Solids are to be avoided, especially when there is gastric disturbance. Jellies made from calves' feet, and copious drinks of barley

water or ordinary water, serve to eliminate and wash out the waste material resulting from febrile wasting.

**Alcohol.**—As a rule alcohol should be avoided, but when the maximum daily temperature is reached it may be given alternately with beef juice and jelly every hour, and it is of the highest value. Many fever patients die for lack of forced feeding, and in this alcohol can play a good part.

**General Management.**—Every person with a high temperature must be kept in bed, otherwise dangerous complications are liable to occur. No visitors should be allowed in the room, especially if there is a tendency to delirium. The disease should be treated by systematic dieting and hygiene, and by people who are accustomed to such nursing.

Medicinal remedies, except for special symptoms, are out of place in the treatment of fever. An exception may perhaps be made in favour of diaphoretics, especially liquor ammon. acet.

## FLATULENCE.

This is a very usual symptom of indigestion. A certain amount of gaseous matter is generated in a regular way in the act of digestion, but in health it gives rise to no inconvenience. When gastric or intestinal juices are deficient in power or quantity, products of fermentative decay are formed, and flatulence is a marked symptom. Flatulent distention of the stomach causes palpitation by upward pressure on the heart. This interferes with the due circulation of the blood, and giddiness, fainting attacks, shortness of breath, and many incidental discomforts accrue.

### TREATMENT.

The palliative treatment of flatulence is effected by carminatives, such as peppermint, cardamoms, ginger, &c., combined with soda or potass. bicarb., and with a diffusible stimulant, such as ammonia or sp. chloroform. Charcoal may also be used advantageously as a palliative, either alone or

combined with bismuth or an alkali. It has the property of absorbing gases. But the effective treatment of flatulence will be found in regarding it as a symptom of indigestion. (*See* 'Dyspepsia.')

## GALL-STONES.

(*See also* 'LIVER.')

### TREATMENT.

**Morphia** given hypodermically in full doses allays the pain of biliary colic until the stone has passed, or it may be administered in the form of suppositories. Either plan is to be preferred to giving it by the stomach.

**Hot Fomentations** constantly renewed as they get cool will be found useful to relieve the pain.

**Copious Drinks** of warm water in which bicarbonate of soda has been dissolved—a teaspoonful to the pint—will be found beneficial.

**Olive Oil.**—A large quantity of olive oil is said to arrest almost instantly the severe pain.

**Chloroform** inhaled, or 5 to 10 drops taken internally, may also be found of service.

**Extrusion by Abdominal Manipulation.**—A great authority on the liver, by means of a process of abdominal massage from without, has recently succeeded in literally forcing gall-stones along the bile duct into the intestine, thereby obviating drug treatment.

## GOUT.

In many cases gout is hereditary, but not always. Often it skips a generation. It is generally associated with the use of strong saccharine wines, combined with a highly nitrogenised diet and lack of exercise. It is a disease of the highly civilised Englishman. When it occurs in women, it is chiefly among those who are robust and hearty-looking and inclined



to masculine pursuits. Public men are very liable to it. Gout comes on usually in the early morning. It attacks mostly the ball of the great toe. Then it extends to other joints. The complaint gets more severe as age advances. A paroxysm is known to be impending by the presence of deranged digestion, irritability of temper, and a feeling of general disturbance. The pain is peculiar. It is likened to a feeling of a dog gnawing at the bones.

#### TREATMENT.

**Hygiene.**—A life of indolence is prejudicial, and one of activity and usefulness should be preferred. Regular and systematic exercise, such as walking or out-of-door sports, is an excellent preventive. Severe or exhausting extremes of labour are prejudicial. In very inveterate cases, removal to a warm dry climate during the winter is desirable.

**Promotion of Skin Action.**—To relieve the other excretory organs, friction of the surface and judicious bathing should be resorted to, and Turkish baths may help in this way taken regularly once a fortnight.

**Non-nitrogenous Diet.**—The active cause of gout is the presence of uric acid in excess, and this is derived from animal food. Therefore meat (especially salmon, veal, pork, or highly seasoned dishes) should be eaten sparingly. Pastry, greasy or twice-cooked food, and sugar, which are liable to create acidity, should be avoided.

**Alcohol.**—It is generally asserted that while too much animal food is the active cause of gout, rich saccharine wines, such as port, sherry, champagne, or madeira, determine the attack. Alcohol in any form is conducive to gout, but the least harmful are spirits, light wines, and beer in strict moderation, and taken only with meals.

**Hot Fomentations.**—The best local treatment of a joint acutely inflamed with gout is to wrap the part in flannels wrung out of hot water, with one or two teaspoonfuls of laudanum sprinkled on the surface. Cold applications are dangerous, and may drive the uric acid poison to internal parts.

An excellent application is glycerine and belladonna extract in equal parts, rubbed on thickly.

**Potassium Iodide.**—With a view of eliminating uric acid, drugs in which it is known to be soluble should be administered. The lithium salts are stated to be best for this purpose, but experience demonstrates that potassium salts are not less effective. Potass. iodid., 5 grs. every four hours, is a remedy of uniform efficacy. It may be combined with colchicum or other drugs. The following is a good recipe :—

Potass. iodidi	.	.	.	.	.	ʒss.
Sodii salicylat.	.	.	.	.	.	ʒj.
Tinct. card. co.	.	.	.	.	.	ʒij.
Tinct. digitalis	.	.	.	.	.	℥xx.
Glycerini	.	.	.	.	.	ʒiij.
Aquæ ad	.	.	.	.	.	ʒvj.
ʒj. t.d.s.						

**Colchicum** is a remedy which has a specific action on gout. It should never be given alone, as cases so treated do not progress well, the disease being liable to return. When combined with saline aperients, such as mag. sulph. or with pot. iodid., it increases their action greatly. Combined in this manner, it may be given in doses of ℥x. to ℥xxx. of the wine every six hours.

**Salicin** and **Benzoates** are useful. Benzoate of lithia gr. xx. with salicin ʒss. is a good combination.

**Antipyrin.**—In doses of gr. x. or more, this remedy is valuable to allay the acute pain of gout. It is useful also to allay headaches or other symptoms of uric acid origin.

**Hot Water Drinking.**—On the principle of flushing the system, and thereby dissolving and promoting the elimination of uric acid, copious drinks of water, hot water, or potass water, are decidedly useful.

**Mineral Health Resorts.**—Many sufferers are in the habit of frequenting various spas with the view of getting well. The exercise, spare diet, and change of scene have a beneficial effect. The brine baths of Droitwich are useful. This treatment, if desired, can be practised at home by dissolving 10 to 20 lbs. of salt in 30 gallons of water at a temperature of

100° F. A glassful of Woodhall Spa water every day fasting, for a week or more, is also said to have a curative action.

**Mineral Acids.**—Nitromuriatic acid,  $\mathfrak{m}\mathfrak{x}$ . or more, may be combined with nux vomica or quinine as a tonic in cases of atonic gout due to impaired health.

**Galvanism.**—After the acute symptoms have subsided, this is a useful form of treatment.

## GRAVEL.

This is a term commonly applied to a condition in which there is an abnormal quantity of uric acid in the urine, which is passed in small quantity and of high colour. It is quite clear when passed, but on cooling deposits more or less copiously a 'brick-dust' precipitate. This is a comparatively harmless and temporary ailment passing off in a few days ; but the appearance of the red precipitate is often the occasion of alarm on the part of the patient, who has been known to mistake it for blood. The complaint arises generally from some disorder of the system—chiefly from indigestion or mal-assimilation of food—and it is amenable to quite simple treatment. This consists in dissolving the uric acid and washing it out of the system, and it is accomplished by giving potass. bicarb. gr. xx. t.i.d. and by copious diluent drinks. When the urine has regained its natural character, tonic treatment should be resorted to in the form of iron and quinine, or of one of the vegetable infusions with a few drops of any of the mineral acids.

There is a more serious form of the complaint when a concretion forms in the kidneys, and in the course of its passage to the bladder, which may last for hours, gives rise to pain of the most intense description. The treatment here is with the view of palliating the pain, and must consist in large doses of opium. One or two grains of the powder in the form of pill should be given every two or three hours, and the potash and diluent and subsequent tonic treatment should also be carried out. Hot fomentations over the seat of pain will also be useful.

A third variety of the complaint, and the most serious of all, is when concretions of various kinds are formed in the bladder, and becoming too large to be passed by the urethra, are the occasion of pain, the most agonising, it is said, to which the human system is subject. These cases must be left entirely in the hands of the surgeon, and they call for the highest resources of his art, as the concretions (calculus or stone) must either be crushed or cut out (lithotrity and lithotomy).

## HAIR (CARE OF). BALDNESS.

Hair requires to be cut regularly. It ought to be kept uncovered and exposed to air and light. Constant wearing of modern hats is a frequent cause of baldness. The hair is an appendage of the skin, and participates in skin changes. Baldness is very generally a constitutional ailment, some people who are otherwise in good health, losing their hair very early, while others retain it all their lives. But sometimes it occurs from other causes—after an exhausting illness, for instance, or from anything, mental or bodily, that injuriously affects the system generally. Sometimes, also, it proceeds from local causes.

### TREATMENT.

**Washing.**—Occasional cleansing of the scalp is beneficial : the pores are kept open and the roots are made healthy. A good cleansing wash for the hair is camphor ℥ss. and borax ℥j. in a quart of boiling water ; to be applied with a sponge, and the hair brushed well afterwards. A good lotion for the same purpose is the following :—

Borax	.	.	.	.	.	℥ss.
Glycerine	.	.	.	.	.	℥j.
Liquor ammon.	.	.	.	.	.	℥j.
Spirit rosemary	.	.	.	.	.	℥iss.
Rose water to	.	.	.	.	.	℥xvj.

Mix.

Filter through magnesia.

Too frequent washing of the hair is prejudicial, with hot water and soap especially so. It removes the natural grease or gloss so strikingly seen in the sleek coat of a well-kept horse. Dandruff, or the fetid débris of the scalp, should be got rid of by appropriate treatment. It rots the hair and causes eruptions.

Rough treatment and want of cultivation in childhood have to answer for the loss of many beautiful tresses.

**Fats.**—In the form of oil or pomade, fatty substances supply nutriment to the hair roots and are beneficial. Many people find it necessary to use some oily preparation for *dressing* the hair. When this is the case, the hair should be cleansed from it at intervals by the use of the borax lotion mentioned above. A useful and more cleanly *dressing* for the hair is got by mixing equal proportions of almond oil and lime water and adding a few drops of an essential oil to perfume it.

**Cantharides.**—When the hair roots require stimulating, cantharides is the usual application, and other stimulants are used with the same view, such as ammonia, acetic acid, chloroform, &c. It is questionable, however, if cantharides does much good if used short of the irritation stage. Certainly if any preparation is applied which produces decided itching and faint vesication, benefit follows. Squire's *linimentum crinale* does this. The formula is :—

Cantharidin.	.	.	.	.	gr. j.
Æther. acetic.	.	.	.	.	ʒvj.
Solve et adde—					
Spt. rectificat.	.	.	.	.	ʒiij.
Ol. ricini	.	.	.	.	ʒj.
Ol. lavand.	.	.	.	.	℥xv.

The following is Sir Erasmus Wilson's hair lotion :—

Ol. amygd. dulc.	.	.	.	.	ʒj.
Liq. ammon. fort.	.	.	.	.	ʒj.
Spirit. rosmarin.	.	.	.	.	ʒiij.
Aquæ mellis.	.	.	.	.	ʒiij.
Misce.					

To be dabbed among the roots of the hair when brushing, daily.



The following is also an elegant and useful hair-wash :—

Tinct. capsici	.	.	.	.	℥ss.
Tinct. cantharidis	.	.	.	.	℥j
Ol. bergamott.	.	.	.	.	℥ij.
Aquæ rose	.	.	.	.	℥iv.
Spirit. vini rect. ad	.	.	.	.	℥xij.

Misce.

Filter through magnesia.

**Sulphur.**—The hair itself is rich in sulphur, and on the principle of supplying an important ingredient, this element is useful. It is also beneficial in many affections of the scalp. It may be applied as lotion or ointment at bedtime.

**Ung. Hydrarg. Oleat.**—When local bald patches present themselves—the so-called alopecia areata—the remedy which has the best effect is the 20 per cent. ointment of the oleate of mercury. This must be continued for several months.

**Ung. Hydrarg. Ox. Rub.** is the remedy for baldness caused by parasitic disease of the scalp, thus—

Ung. hyd. ox. rub.	.	.	.	.	℥ss.
Adipis odorati	.	.	.	.	℥iss.

Misce.

Apply at bedtime.

## HÆMORRHAGE.

Whenever the tissues are subjected to injury or disease, the blood vessels are affected, and their contents flow out. If a large vessel is involved, free and possibly fatal hæmorrhage will result. Arterial bleeding is known by the blood being of a bright red colour, and spurting up from the wound—like a jet. This must be arrested at once by compressing the vessel immediately above the wound with the finger until a more permanent compress can be applied or surgical assistance obtained. If the small capillaries are torn asunder, oozing is the character of the bleeding.

The blood is endowed with peculiar properties, by reason of which, on exposure to the air, it coagulates. Nature stops

bleeding by blocking up the orifice of the bleeding vessel with a clot of coagulated blood. If the bleeding is severe and prolonged, faintness is induced, and this diminishes the force of the blood current.

Hæmorrhage from the exterior of the body, from the skin, is generally caused by injuries or ulcerations. Bleeding from internal parts is more usually due to disease.

Loss of blood from the nasal cavities, the lungs, stomach, bowels, or kidneys, is frequently a serious symptom of some morbid state, and calls for prompt attention.

#### TREATMENT.

**Bleeding from the Nose.**—Young adults are especially prone to nose-bleeding when they are out of health. This is not always to be discouraged, as it is an effort of nature to relieve some congested condition. Only when it becomes very troublesome, or when there is the danger of too great a loss of blood, is it to be arrested. This may be done by dipping the face in a basin of cold water, snuffing the water up through the nostrils and returning it by the mouth, or by snuffing up a little powdered alum or tannin, or by plugging the nostrils with cotton wool dipped in tinct. ferri perchlor. If these means fail, the extr. ergot. liq. in doses of ʒss. to ʒj. every three or four hours will in all probability be effectual.

**Bleeding from the Throat or Lungs**, when it occurs as a symptom of phthisis, is always grave, showing that the disease is active. During the attack the patient should remain perfectly quiet in bed and be given ice to suck, and he should be put on a mixture containing ac. sulphuric. dil. ʒxx., hazeline ʒxx., and ext. ergot. liq. ʒxx. to each dose, or take acid. gallic. in 10-grain doses every three hours. If the hæmorrhage is free and dangerous, recourse should at once be had to a hypodermic injection of ergotine gr. iij. injected deeply into the calf of the leg.

**Bleeding from the Stomach** is generally caused by ulcers or tumours. What the patient vomits resembles coffee-grounds. Rest in bed and the sucking of ice are essential.

If there is much tendency to vomiting, the diet should consist exclusively of peptonised milk, with an occasional dose of an effervescing mixture. To arrest the hæmorrhage, hazeline in ʒj. doses, or acid. sulphuric. dil. in ʒss. doses, or gallic acid gr. x. will probably have the desired styptic effect and render recourse to hypodermic injections of ergotine needless. Much the same treatment would apply in hæmorrhage from the bowels, unless due to piles, which of course require appropriate treatment.

## HAY FEVER.

This is an affection which attacks some people during the hay season—from the month of May till July. The nostrils and eyes chiefly are the seat of the complaint—there being intense sneezing and running from the former, and soreness of the latter—but it frequently affects the throat and chest also, producing paroxysms of coughing and breathlessness. It is supposed to be caused by some emanation from hay or other vegetable product, as it occurs only at a particular stage of plant growth, and it is cured by the removal of this cause—by a sea voyage, for instance. It is a rare complaint, and affects only particular individuals, who must undergo their ordeal every year at the appointed season. Many cannot enter a room in which there is a bouquet of fresh flowers without being thrown into a paroxysm of sneezing, &c.

### TREATMENT.

In spite of much that has been said to the contrary, this can only be of a palliative character. There is no cure except removal of the cause, as by a sea voyage ; but much may be done to relieve the distressing symptoms. Ammonia is the most important remedy in this respect. It should be snuffed up from smelling salts as frequently as possible. Many recommend the addition of carbolic acid, oil of eucalyptus, or similar remedies.

A solution of cocain. hydrochlor., 4 or 5 per cent., may be

pencilled on the inside of the nostrils with a similar view. It gives immediate relief, but requires to be repeated frequently, as its effects are very evanescent.

## HEADACHE.

A headache is not a disease, but it means that something is amiss with the machinery of life which requires attention.

Headache affects those who imbibe not wisely but too well and those who are careless liverers and neglect the laws of health. This is bilious headache ; but there is also headache of a nervous origin, arising from any undue strain on the nervous system, as excessive mental application, worry, excitement, crowded atmosphere, &c. Great pain in the head is likewise an incipient symptom of many acute fevers, as typhoid, smallpox, or scarlatina, and it is important to recognise its significance early by the temperature.

### TREATMENT.

Rest and sleep are the natural restorers of a tired nervous system. Those who suffer from nervous headaches find tea or coffee relieve them, but if taken in excess the nervous system is rendered more susceptible to fresh attacks. Change of occupation or change of air, combined with free exercise, may entirely arrest the tendency with some people. ʒj. sp. ammon. arom. in a glass of water is a simple but effectual remedy in cases of slight headache. Of course it is only a temporary one.

**Caffeine.**—When sufferers are prone to fly to tea or coffee for every little nervous pain, it is wise to advise their discontinuance and to substitute caffeine, their active principle. This is more likely to be taken only when necessary, and it may be administered in the granular effervescent form—either the citrate or hydrobromide. Guarana is a similar remedy to tea, and is usually given in the form of powder, gr. x. to gr. xx.

**Antipyrin** in doses of gr. x. is almost a specific in many forms of headache, especially of a neuralgic nature, but it is a

somewhat risky medicine to prescribe, from its depressing action on the heart. Phenacetin in doses of gr. x. is also largely administered for headaches, and has not the drawback that attaches to antipyrin.

**Salicylate of Sodium** gr. x. hourly will relieve many cases, and it may be combined with effervescing citrate of caffeine :—

Sodium salicylate . . . . .	gr. x.
Eff. caffeine citrate . . . . .	ʒj.
Every two hours in a wineglassful of water.	

**Cocaine Hydrochlorate** in doses of gr.  $\frac{1}{4}$  to gr. j. may be found serviceable in the headache of nervous debility, or in that produced by morphia-poisoning or alcoholism. Coca wine may be used instead.

**Cannabis Indica**, given in doses of gr.  $\frac{1}{4}$  in pill, is valuable in cases of headache due to mental or bodily overwork. It acts well in the following combination :—

Ext. cannab. ind. . . . .	gr. $\frac{1}{4}$
Zinci phosphidi . . . . .	gr. $\frac{1}{4}$
Ft. pil. T.d.s.	

**Potassium Bromide**.—Where there is restlessness and a want of sleep associated with headache, potassium bromide in doses of ʒss. is highly useful. It also controls the nervous head-symptoms frequent at the change of life.

**Aperients**.—A most frequent case of headache is irregular action of the bowels. A mercurial or podophyllin purge will often carry it off. Saline aperients are excellent to the same end. Natural aperient waters are also beneficial in many cases.

**Valerian**.—In the headaches of hysteria or excessive grief ʒj. tinct. valer. ammon. in water will generally allay the pain and feeling of abject misery. Any of the valerianate salts can be substituted in pill form.



## HEART (DISEASES OF).

The heart has great latent strength to fit it for its duties. It gets no real rest at all. Even during sleep its monotonous beatings continue.

The heart is, as it were, sandwiched between the lungs above and the stomach below, and is easily affected by either or both of them. If pressed upon by a flatulent stomach it resents the intrusion, and functional disturbance ensues. This is called palpitation. Few are entirely free from this unpleasant feeling.

Real heart disease is comparatively rare. Those who have it generally do not know unless unwisely told. It is most prejudicial to a person suffering from organic heart disease to be rashly informed that his heart is diseased and that a quiet idle life is essential.

Rheumatic fever is the disease which is answerable in early life for most damaged hearts : it thickens the edges of the valves and renders them incompetent. A cardiac sufferer of this kind should pursue the even tenor of his way just as though he were well and strong. He should be assured that the heart's reserve force will so strengthen the muscle of that organ that compensatory action will be established to meet the altered circumstances of incompetent valves.

In advanced years the general thickening of the arteries and a tendency to corpulency predispose to fatty changes in the muscular substance of the heart. Shortness of breath, fainting fits, and danger of sudden death are among its features. Old people with fatty hearts, unlike other sufferers, must be urged to avoid hurry and worry and understand distinctly that the least excitement is dangerous.

### TREATMENT.

**Hygiene.**—The patient should pursue his regular occupation, taking care to avoid mental excitement and drinking habits. His calling should be one tolerably free from worry and anxiety. His clothing should be warm yet light, and he should take gentle exercise in the pure air.

**Diet** plays a most important rôle. Nitrogenous food should be restricted in cases complicated with gout. No heavy suppers should be indulged in under any circumstances. Many people get on better with a modicum of alcohol which helps the food to digest, and so prevents flatulence—a symptom to be dreaded.

**Aconite.**—To control violent throbbing or pain associated with arterial tension, tr. aconiti in doses of  $\mathfrak{m}\mathfrak{i}\mathfrak{j}$ . every four hours combined with liq. amm. acetatis  $\mathfrak{z}\mathfrak{j}$ . and tinct. sumbul  $\mathfrak{z}\mathfrak{ss}$ ., is a valuable treatment.

**Digitalis** is the remedy upon which most reliance can be placed as a tonic and stimulant to promote the placid action of the heart. In difficulty of breathing, dropsy, lividness of the extremities, irregularity, or palpitation, tr. digitalis, in doses of  $\mathfrak{m}\mathfrak{v}$ . to  $\mathfrak{m}\mathfrak{x}$ ., exerts a very beneficial action.

**Tr. Strophanthi.**—This comparatively new drug is best given when the latter fails, or in heart disease set up by disease of the kidneys and causing dropsy.

**Nitrite of Amyl.**—In difficulty of breathing, fainting, or other dangerous symptoms due to heart disease, the inhalation of this drug is indicated.

**Ether**, in the form of spt. ætheris  $\mathfrak{z}\mathfrak{ss}$ ., combined with tinct. hyoscyami  $\mathfrak{z}\mathfrak{ss}$ ., is prompt in relieving difficulty of breathing due to failure of the heart's action. In very dangerous cases æther may be injected hypodermically to secure a quick effect.

**Cocaine** in the form of coca wine is a stimulant serviceable in the palpitation of a weak, dilated, flabby heart.

**Belladonna** can be applied in the form of plasters over the cardiac region to allay pain and palpitation.

**Lactopeptine.**—In people who suffer from fatty heart there is usually great weakness of the digestive organs, and life can at times be prolonged by the judicious use of lactopeptine and peptonised foods.

**Purgatives.**—Where there is constipation associated with engorgement of the right side of the heart and a tendency to dropsy or full-bloodedness, purgatives, such as pulv. jalapæ co. gr. xx. to  $\mathfrak{z}\mathfrak{i}$ ., act like a charm.

## HERPES (SHINGLES).

This is a skin complaint consisting of blisters or vesicles caused by irritation of the ends of the superficial nerves. It generally affects the back and chest, and almost universally one side of the body only ; but it may occur anywhere if there are superficial nerves to cause it. The lips and face, mouth, eye, and genitals are all favourable localities for its appearance. The complaint is generally ushered in by shivering and pain in the back, with some feverishness. It is a comparatively slight affection, passing off in ten or twelve days, but occasionally it is the source of much discomfort and pain. Care should be taken not to pick off the tops of the vesicles.

### TREATMENT.

**Diet.**—Herpes attacking the lips or face is a common symptom among children, arising from errors of diet. Rich living, or the too liberal use of sugar, causes heat of the blood. Plain unheating food is called for in treating this skin affection.

**Quinine.**—On the principle of treating the neuralgia, quinine in full doses will be found an excellent remedy to combat the severe forms of herpes. Phosphorus pills will answer well in chronic cases due to nervous debility. Phenacetin is a good drug for herpes, and may be combined with quinine.

**Calcium Sulphide.**—There is a close relation between herpes and asthma, where the two are definitely known to co-exist. Calcium sulphide gr.  $\frac{1}{10}$  t.d.s. is then an admirable drug to give. An alkaline mixture containing potass. or soda bicarb. gr. x. to gr. xv. to the dose can be combined with it where there is much heat of blood or acidity.

**Collodion**, with the addition of 1 per cent. of cocaine (alkaloid), immediately allays the intolerable itching.

**Decoct. Papaveris.**—Fomentations made by wringing out flannels in a decoction of poppy heads is the best local application when the pain is excessive.

**Glycerine.**—Glycerine alone or the glyc. tannin and glyc. ac. carbolic. are useful applications in most cases of herpes. Menthol 20 per cent. ointment allays the burning and tingling, or any simple dusting powder may be employed.

**Zinc Oxide.**—A very soothing ointment made by mixing zinc ointment with liniment. calcis equal parts, is often employed to exclude the air, being covered with linen and cotton wool after it has been smeared on.

## HICCOUGH.

Hiccough is, properly speaking, merely a symptom. It is a spasmodic contraction of the diaphragm, accompanied by spasmodic closure of the throat. It is a common symptom in infants from overfeeding and curdling or fermentation of food. Adults get it as a result of faulty digestion, and heartburn or a sluggish liver are the conditions that induce it most.

Hiccough, although almost always a slight affection, in some cases assumes a peculiarly obstinate and distressing, and it may even be dangerous, form. For such cases a recent authority has recommended three methods of procedure, each of which has been highly successful. Firstly, inhalation of amyl nitrite. Secondly, loosening every tight article of dress round the body, and immediately after a hiccough closing the nostrils by pinching them closely and then sipping a glass of cold water, sucking it in and holding the breath. The third mode of procedure is as follows:—A chair with a high back is placed in front of the sufferer, and he is told to raise his arms above his head, and to lean forward, bringing the body across the chair-back at a line a little lower than the diaphragm, and at the same time to bring his arms forward and downward till they touch the seat of the chair. If the first trial fails, repeat the whole operation.

**Domestic Remedies.**—It is surprisingly easy to stop hiccough when one knows how to do so. Applying cold water to the lobe of the ear, frequent sipping of cold water,

counting 100 without drawing breath, warmth or pressure to the pit of the stomach, are all effectual expedients.

**Camphor and Antispasmodics.**—Warm camphoraceous drugs, such as spt. camphor., ether, chloroform, eucalyptol, are all good simple remedies for hiccough. A few drops may be administered on sugar. Chloral hydrate gr. v. t.d.s. will answer in more persistent cases. The following also is good :—

Spt. ætheris	.	.	.	.	.	ʒiij.
Spt. amm. arom.	.	.	.	.	.	ʒij.
Tr. opii	.	.	.	.	.	ʒj.
Aq. camph. ad	.	.	.	.	.	ʒvj.

ʒss. in a wineglassful of cold water.

**Alkalies.**—The best remedy for troublesome infantile hiccough is calcined magnesia, gr. iv. to gr. v., placed on the tongue or combined with a little syrup and aq. anisi.

**Acids.**—When hiccough is due to heartburn or acidity suitable mineral acids will allay it. Ac. sulphuric. dil. ʒx., aq. menth. pip. ʒj. If mineral acids are not easily procurable, vinegar or lemon juice will do instead.

## HYDROPHOBIA.

It is a common occurrence for a person to be bitten by a dog. To be bitten by a mad animal is rare, and yet even the majority of such cases escape hydrophobia. The reason of this is that a dog usually bites a person's leg, and in doing so his teeth are wiped clean of the poison by the clothing. Bites in the flesh where it is exposed are of course much more dangerous.

**Don't kill the animal.**—It is foolish to kill an animal which is only suspected to be suffering from rabies, because it has bitten people. If in course of time symptoms of true hydrophobia develop themselves, the worst is known ; on the other hand, if the dog is not suffering from that disease the minds of those who have been bitten are relieved from an ever present dread.



Hydrophobia may ensue on the bite of a rabid dog many months afterwards. It comes on with pain in the wound, which reopens—if already healed—and discharges. Difficulty in swallowing, spasmodic action of throat, great anxiety, dread of water, or anything associated with it, rapidly ensue. The scientific and rational treatment discovered by Pasteur bids fair, as in the case of diphtheria, to mitigate the terror with which we have come to regard this terrible disease. Still, immediate measures of a preventive nature must not be neglected.

At once after a person has been bitten, the wound should be sucked and encouraged in every way to bleed. There is no danger in sucking, as the poison will not affect the mouth unless the skin is broken. If a ligature can be tied round so as to obstruct the blood circulation in the part, and then the wounds excised, it will make the case safer. The immediate application of strong caustics has been recommended by different authorities—nit. argent., liq. am. fort., acid. carbolic. It is doubtful if they can be used early enough to prevent the virus entering the system, but at least they may inspire confidence in the patient. The only treatment of hydrophobia which can be adopted is with a view to palliate the severity of the symptoms, for the disease is always rapidly fatal. Morphia, chloroform, and other remedies of that class will readily suggest themselves.

## HYSTERIA.

This is one of the most curious and yet most distressing of feminine maladies. It is a usual outcome of a failure to direct the mental faculties into proper channels, or of unhealthy excitement and excess.

Woman is more prone to it at the extremes of her sexual life, either when she is yet in her teens or at the change of life.

It is a most unpleasant sight to see a person in a fit of hysteria. It comes on with a feeling of choking, as if a ball (the 'globus hystericus') were in the throat. The patient

quickly passes into a state of great excitement, alternately laughing and crying, partly unconscious, and wildly incoherent.

The patient is better after the fit for a while, or until the time is ripe for another attack, and this is determined greatly by her surroundings.

### TREATMENT.

**Occupation.**—Women who suffer from hysteria should be induced to take up some occupation or recreation into which they can enter heartily. If lawn tennis, boating, or other outdoor amusements are not available, district visiting or plenty of domestic work will make their lives useful to others and more agreeable to themselves.

**No Sympathy.**—It is always difficult to break off bad habits, and hysteria is in many ways such. If friends sympathise and commiserate the patient, she is certain to suffer more. Firm, kind treatment is most effective in abating the mental storm.

**Cold Water Externally.**—Nothing, except a galvanic battery, is so effective in restoring a person in a hysterical fit as cold water. This is best applied by dipping the end of a towel in cold water, and flicking the face with it until consciousness is fully restored. Smelling salts aid the action of the cold water.

**Diet.**—There is a proneness among some hysterical people to fly to stimulants. These should be rigorously denied, otherwise permanent drinking habits may be formed. All rich unwholesome food is bad.

**Valerian.**—As a remedy for hysteria no other equals in efficacy valerian, which may be administered in a variety of ways, as zinc valerianate gr. ij., or iron valerianate gr. ij. in pill form, or in the form of the ammoniated tincture ʒj. t.d.s. ex cy. aq., and  $\mathfrak{m}\mathfrak{x}$ . tinct. sumbul may be added.

**Asafoetida.**—In obstinate cases, which resist other drugs, asafoetida pills, gr. x. h.s.s., will do wonders. The great objection to it is its strong odour.

**Apomorphia** given hypodermically is useful in hysterical

fits caused by indigestible food, in which vomiting of the irritant is considered necessary.

**Bromide of Potassium.**—When increased activity of the sexual functions is present in hysteria, bromide of potassium in full doses is the most reliable remedy to give. It prevents the hysterical paroxysms.

**Aperients.**—Where constipation is present or the liver is sluggish, a simple aperient pill, with the addition of a mild mercurial or podophyllin or euonymin, will be necessary.

**Blisters.**—When hysteria simulates paralysis or disease of joints, resort, or threatened resort, must be had to blisters, and the patient must be told that if that fails recourse will be had to the actual cautery. The influence of this threat on the mind is generally sufficient to effect a cure.

**Tonics.**—In cases of hysteria due to debility or mental anxiety tonics with cod liver oil are serviceable. Quinine and iron tonic is one of the best.

## INFLUENZA.

The symptoms of influenza in its ordinary form are those of a catarrh—feverishness, running at the eyes and nose, sore throat, and cough, with the addition of pains all over the body and great depression and prostration, these last being quite characteristic of the complaint. In its epidemic form, which so many of us have been acquainted with these last few years, these symptoms are all intensified, and not seldom some new ones added, such as gastric or intestinal disturbance and intense headache. The progress of the disease after its first appearance is very rapid, the pulse rising to 100 or more and the temperature to 104° or 105° in a remarkably short space of time, and, if not arrested by prompt measures, these symptoms may continue for a very long time. The complaint leaves the system much weakened and depressed, and convalescence is slow and protracted. In this stage there is great risk of fresh access of the chest symptoms, and in fact pneumonia is responsible for great part of the mortality in this complaint.

## TREATMENT.

The first object is to arrest the disease if that be possible. For this purpose tr. quinin. ammoniat. in  $\mathfrak{z}\text{j}$ . or  $\mathfrak{z}\text{ij}$ . doses three or four times a day is perhaps best. Oil of eucalyptus, five drops on sugar, three or four times a day, and using it on the handkerchief and on smelling salts, may also prove effectual. But if the symptoms are severe, or if they do not readily yield to this treatment, then the patient must take to bed (this is imperative), and the following treatment be resorted to. Phenacetin 8 grains every four hours for the headache.

Potassii bicarb. . . . .	$\mathfrak{z}\text{ij}$ .
Liq. ammon. acet. . . . .	$\mathfrak{z}\text{iss}$ .
Tr. aconiti . . . . .	$\mathfrak{m}\text{xxiv}$ .
Sp. æth. nit. . . . .	$\mathfrak{z}\text{ij}$ .
Vin. ipecac. . . . .	$\mathfrak{z}\text{j}$ .
Aq. camphor. ad . . . . .	$\mathfrak{z}\text{vj}$ .

Misce.

$\mathfrak{z}\text{ss}$ . c. gr. x. acid. citric. solut. in  $\mathfrak{z}\text{ss}$ . aquæ qq. sec. vel tertia hora.

Diaphoresis should be promoted by warm drinks of tea, or coffee, or gruel.

It is essential to maintain the strength from the first. If food is repugnant, that difficulty may be overcome by occasional spoonfuls of strong beef tea made from the extract, chicken broth, port wine or coca wine, or milk with one of the aerated waters. When the feverish symptoms have subsided, tonic treatment must be resorted to and steadily persevered in. Quinine and hydrobromic acid is the most suitable to begin with, as follows :—

Quininæ sulph. . . . .	gr. xij.
Acid. hydrobrom. dil. . . . .	$\mathfrak{z}\text{j}$ .
Tr. nucis vom. . . . .	$\mathfrak{m}\text{xx}$ .
Aq. ad . . . . .	$\mathfrak{z}\text{vj}$ .

Misce.

A sixth part thrice a day immediately before food.

This may be succeeded by  $\mathfrak{z}\text{ss}$ . doses of the syrup of the

phosphates of iron, quinine, and strychnine, or that of the hypophosphites or hydrobromates.

Young people affected by the disease should be treated in the same manner as adults, and the diaphoretic mixture mentioned above may be given in half-doses for those between 14 and 18. For children under 14 the following is a reliable mixture :—

Potass. chlorat. . . . .	3ss.
Potass. bicarb. . . . .	3j.
Liq. ammon. acet. . . . .	3vj.
Vin. ipecac. . . . .	3ij.
Syr. aurantii . . . . .	3ss.
Aq. ad . . . . .	3vj.
Misce.	

A dessertspoonful to a tablespoonful (according to age) every three hours.

Children are generally sick when the influenza attack comes on. The sickness is most intense and alarming, but brief, and there seems to be nothing gained by stopping it. It is impossible to lay too great stress on the circumstance that the most important remedial agency in this complaint is good nursing and careful avoidance of cold. This applies especially to the convalescent stage, and in the case of elderly people and all those whose already impaired vitality may be further lowered even dangerously by the prostrating influence of the malady. In many cases the normal condition is not restored except by a long rest and a complete change of scene and air.

## INSECTS (BITES OF), &c.

Nature in her profusion has provided an immense number and variety of insects in the world. Some of them are a torment to men. No doubt all have their part to play in the universe, although what that is, is not always apparent to us.

Bees, wasps, and hornets are the great flower fertilisers. They are provided with stings, and if man interferes with them he may get severely punished.

Gnats and mosquitos inhabit malarial marshy swamps.



Perhaps they are meant to warn man not to penetrate to such localities by biting him when he does.

Ants, cockroaches, scorpions, and tarantulas are provided with similar means of keeping off their enemies.

Houseflies and bluebottle flies are the scavengers of putridity ; their larvæ eat up animal refuse. They annoy man when they abound, but they also remind him by their presence of the good work they are doing.

Fleas and bugs are a source of much misery and irritation to cleanly housewives.

**Bee and Wasp Stings.**—If the sting has been left in by the insect it must be extracted ; then a little diluted liq. ammoniæ, or the 'cut 'surface of an 'onion will neutralise the poison and allay the pain and attendant swelling.

The bites or stings of ants or scorpions can also be neutralised by ammonia or potass. permanganate solution.

**Mosquito Bites.**—A host of applications have been suggested to prevent mosquitos, gnats, and harvest bugs from biting. Soap—especially carbolic soap—is one of the best to use. Coconut oil is a favourite remedy smeared on exposed parts. The following lotion is excellent for the same purpose :—

Hyd. perchlor.	.	.	.	.	gr. ij.
Spt. chloroformi	.	.	.	.	ʒj.
Spt. camphoræ .	.	.	.	.	ʒj.
Aquæ	.	.	.	.	ʒiv.

Oil of lavender, or other aromatic essential oil, is used with the same view.

Liq. plumbi ʒj. mixed with sp. camph. ʒij. is a good remedy, dabbed on the part, to allay the irritation and swelling often caused by the stings or bites of these insects.

**To Get Rid of Houseflies.**—All animal food should be kept outside the house in a flyproof safe, and all refuse of the house should be burnt. The flies having their occupation gone will then themselves disappear.

To destroy flies the arsenical or other fly-papers moistened with water and placed on a plate with a little sugar, or the sticky papers, are very effectual.

**To Remove Fleas and Bugs.**—Scrupulous cleanliness is essential to clear a house of insect vermin. If a house is infested with bugs the effectual way to get rid of them is to fumigate the room thoroughly with sulphur, and then white-wash the ceilings and repaper the walls. A strong solution of corrosive sublimate, with a fourth part of turpentine, is used to paint on the joints of beds or other places which these pests inhabit.

Persian insect powder—the powder of the flowers of the *Pyrethrum roseum*—is invaluable to destroy them when they infest beds, or when they are found on dogs and cats.

## INSOMNIA.

A due amount of calm sound sleep is essential to health : it is refreshment for both body and mind. The brain is not the only part that reposes. Every muscle, nerve, and organ participates in all-healing slumber. The heart beats more slowly, breathing is retarded and shallow, and the mind ceases to worry. Sleep repairs the ravages made by the previous day's wear and tear. Food and drink provide a fresh supply of energy for the next day's toil.

Want of sleep is brought on by many causes. Mental trouble, excessive brain work, digestive disorders, or anything that weakens the body, originate it mostly.

### TREATMENT.

**Hygiene.**—When insomnia is due to obvious influences, such as bad habits, worry, or indigestion, these causes must be removed. A tepid bath at bedtime will at times allay the sleeplessness of children. Immersing the feet in hot water or hot mustard and water is a useful treatment for sleepless adults.

If the sufferer feels the cold, he should be made to sleep in blankets and have on a sufficiency of bedclothes. A hard bed is the best for natural sleep. Feather beds are unhealthy and predispose either to too little or too much sleep.

**Diet.**—As a rule a light nourishing supper, with such articles as beef tea, strong soup, and possibly some alcohol, is desirable in the sleeplessness caused by overwork or fatigue.

**Potassium Bromide.**—In sleeplessness or delirium accompanied by much excitability of the nervous system, this drug, in  $\zeta$ ss. doses every two hours, is invaluable. It may be given with hyoscyamus, belladonna, or other sedative drugs. The other bromides are equally effectual.

**Opium.**—In the want of sleep caused by pain no other hypnotic approaches opium in value for adults. Liq. morphiae mur. may be given in combination with other drugs, and morphia should be used hypodermically in cases where the pain is very acute.

**Chloral.**—In the matter of power chloral hydrate ranks next to opium as a hypnotic, but it should only be given in cases of wild delirium and intense restlessness, when bromides fail. The effect of chloral in producing sleep is very rapid and certain, but it is a dangerous remedy to use owing to its action on the heart.

**Chloralamid** has a similar hypnotic effect and is much safer. It is given in doses of 20 to 30 grains dissolved in spirit and diluted with cold water.

**Sulphonal.**—In doses of gr. xx., given in the form of powder, this drug, in three or four hours' time, produces sleep without subsequent headache or constipation. Its action is rather uncertain owing to its insolubility, and it is apt to make the patient inordinately drowsy on the following morning. These drawbacks are overcome by giving the drug in hot whisky toddy, or even plain water as warm as can be swallowed. Taken in this manner it acts more quickly.

**Paraldehyde,** in doses of  $\text{mxxx.}$  to  $\text{m℥.}$  in syrup and water, is a rather nauseous remedy, but it will induce sleep sometimes when everything else has failed.

**Tinct. Lupuli**  $\zeta\text{j.}$  or more, is useful in the insomnia of gout and other painful disorders, where opium is contra-indicated. A hop pillow is sometimes used with the same view.

## ITCH (SCABIES).

This is caused by a minute insect which burrows underneath the cuticle, raising small watery vesicles, at first about the wrist or between the fingers, but sooner or later spreading over the whole body.

The complaint is characterised by intolerable itching, and it is very contagious, so that every precaution should be taken in the way of isolating the patient and his clothing and towels, &c., to prevent its communication to others.

### TREATMENT.

**Sulphur** is the specific for scabies. Ung. sulphuris should be freely rubbed into all the parts where the disease appears, and repeated daily.

A sulphur bath can be had at one of the large bathing establishments, where special facilities are available for baking the clothes, which destroys any of the insects which might subsequently reinfect the patient. The usual procedure is to rub the whole body with soft soap and water, then wash in a hot bath, to open the pores of the skin and lay bare the burrows. The patient after this is well rubbed with sulphur ointment, and this should be allowed to remain on the skin over night. About three baths are sufficient to cure, taken at intervals of every second day.

**Liq. Calcii Sulphidi.**—Many practitioners prefer the golden solution of sulphide of calcium as a substitute for ung. sulphuris. It is painted on the affected parts after the usual washing and hot bath. It is prepared by boiling ℥iss. sulphur with ℥ss. quicklime—or ℥j. hydrate—in a pint of water for ten minutes, and straining.

**Hydrochloric Acid and Sodium Hyposulphite.**—An effectual plan, entailing but little trouble, consists in applying at bedtime a lotion of sodium hyposulphite ℥iv. to Oj., and in the morning a wash of dilute hydrochloric acid. This deposits sulphur in a state of very fine division upon the

skin, sulphurous acid being simultaneously developed and this is very deadly to the acari.

**Hydrarg. Perchlor.**—If the smell of sulphur be objected to, a lotion as follows will be found excellent :—

Hydrarg. perchlor.	.	.	.	gr. iv.
Amm. chlor.	.	.	.	ʒss.
Spt. rectificat.	.	.	.	ʒvj.
Aq. rosæ ad	.	.	.	ʒvj.

**Liquor Calc. Chlorinat. and Liq. Sodii Chlor.** have also been used in the treatment of scabies, as being less offensive than sulphur. They must be diluted with several parts of water.

**Bals. Peruvian.** painted over the part has also been successful.

Personal cleanliness is indispensable both for the prevention and for the cure of itch.

## ITCHING OF THE SKIN.

Itching of the skin is a symptom in various cutaneous affections—in eczema, nettlerash, scabies, &c.—but it may also exist as a result of acidity or heat of the blood, or of gastric derangement, and it often occurs without any apparent cause. Itching is an indication that the skin requires to be left alone—to be allowed time for healing. Unfortunately this is exactly what it is most difficult to do. Especially is it hard to make people understand that soap and water are bad for irritation. Soap at any rate should be rigorously abstained from in all abnormal conditions of the skin. The superfatting of it modifies its irritating action to some extent, but it is much better to have recourse to some substitute, if necessary for the sake of cleanliness, such as a thin starch or gruel of oatmeal.

**Diet.**—When itching of the skin is the result of acidity of the blood, causing acid perspiration and irritation of the sweat glands of the skin, the diet should be bland and unstimulating. No vegetable acids of any kind should be



taken, and if uric acid is the exciting cause meat should only be very sparingly eaten.

**Remove Skin Eruptions or Parasites.**—When it is an accompaniment of skin eruptions, such as urticaria, lichen, and eczema, treatment should be directed to the disease itself. The itching is a sign that the disorder is mending, and suitable applications to arrest the irritation aid nature to remove at once both the skin disease and the itching. If the irritation is caused by parasites; treatment should of course be directed to their destruction.

**Dry Treatment.**—In cases of itching due to eczema and many other eruptions, it is essential to keep the skin dry to get it well. Hot water bathing may temporarily relieve, but it does not cure. In cases due to urticaria or to blood acidity without eruption, washing is good, and a Turkish bath especially so.

**Calomel Ointment.**—Probably the best remedy for the very troublesome itching of the anus caused by a heated system is calomel ointment ʒj. to ʒj. If due to lice or worms treatment should be directed to their removal. The body louse affecting the hair of the pubes can be killed by means of mercurial ointments, either the ung. hydrarg. somewhat diluted or the ung. hyd. ox. r. or the ung. hyd. am. Stavesacre also is a very effective remedy in ointment form (ʒj. of the oil to ʒj. lard) or as decoction. Perchloride of mercury as a lotion (2 grains to 1 oz.) is equally effective and much cleaner.

**Liq. Plumbi.**—To allay the intense itching of what is called ‘pruritus pudendi,’ a frequent and most distressing disorder attacking women, lead lotion is especially valuable. The following may be suggested :—

Liq. plumbi diac.	.	.	.	.	ʒss.
Zinc. oxidi	.	.	.	.	ʒss.
Tr. opii	.	.	.	.	ʒij.
Aquæ rosæ	.	.	.	.	ʒvj.
Ft. lotio.					

**Hydrocyanic Acid.**—Cyanide of potassium ʒj. to Oj.

or acid. hydrocyanic. ℥xxx. to ℥ij. is a valuable sedative application for various forms of irritation of the skin if unbroken.

**Carbolic Acid.**—Weak solutions of carbolic acid (1 to 40) allay all forms of pruritus. The liquor carbonis detergens, ol. cadi, or ol. rusci has a similar effect. Weak acetic acid lotions or a bath of nitromuriatic acid are serviceable to allay the intense irritation of nettlerash.

**Alkalies.**—Alkaline lotions containing potass or soda bicarb. ℥ij. to Oj. can be applied in cases where acids are unsuitable. Alkalies taken internally are indicated in urticaria and all forms of itching dependent on acidity of the blood.

**Menthol.**—A spirituous solution of menthol gr. xx. to ℥j. or a menthol cone affords great relief to irritation of the skin.

## KIDNEYS (BRIGHT'S DISEASE OF)— ALBUMINURIA.

A healthy kidney is a filter. The blood goes in at one end of the organ full of poisonous and waste refuse. It emerges from the other end absolutely pure : the impurities are gone—filtered away with water.

All filters get out of order sometimes. The kidneys likewise get deranged if disease overtakes the owner.

The organs do their work faithfully and well if the body itself is well ; but when the organism is ill, suffering from fever or some infectious malady, then the strain is great. Fevered blood full of tissue waste and germs is taking these impurities in haste to the kidneys, to be got rid of by filtration. The apparatus becomes choked with débris—it shows signs of congestion and inflammation, and perhaps ulceration. If the fever is not cared for properly, if the patient is allowed to get up too soon, to go out, or to eat unsuitable foods—if by any means the kidney machinery is subjected to rough usage—then the kidney is no longer healthy, but is a leaking filter full of holes and ulcers. Occasionally the blood itself runs through, more usually it is its nutrient essence, albumen, that passes. When

we find albumen in the urine, or when we discover that the excretion of water is insufficient and causing dropsy, that is a sure sign of renal disease.

#### TREATMENT.

**Care of Fever Patients.**—Sufferers from acute infectious fevers, especially scarlet fever, should always be kept in bed until perfectly well.

Persons who are greatly exposed to cold or wet should live carefully, as they are peculiarly subject to kidney disease.

**Alcohol.**—Certain irritant drugs, such as turpentine or cantharides, and alcohol taken in excess, greatly irritate the kidneys and frequently set up disease. They should be rigorously avoided by anyone predisposed to kidney disorders.

**Diet.**—Articles of food rich in nitrogen or albumen, such as eggs or meat, should be avoided by those suffering from albuminuria. An exclusive milk diet (the patient taking about Ovj. a day) is the most successful treatment for most forms of kidney disease. This is a bland emollient form of food which creates but little work for the renal filtration apparatus. It allows the parts affected to rest and heal, but it must be continued for months, perhaps even for years. Those fed on milk in this way thrive, and get fat and well. With an ordinary diet their days may be numbered. Pure distilled water, aerated or mucilaginous drinks, such as barley water, gum water, and linseed tea, should be taken freely when the kidneys are congested or irritable. They soothe and act as diluents.

**Fuchsine.**—In doses of gr. j. to gr. ij., in pill form, this dye frequently causes albumen to disappear from the water. Continued for some length of time it is sometimes curative.

**Nitroglycerine.**—mj. of the official solution, or trinitrine tabloids, are indicated in cases of marked arterial tension.

**Quinine Sulphate** in doses of gr. v. to gr. x. is a good drug to administer if any malarial taint exists.

**Antipyrin** gr. x. or more is an antipyretic remedy which generally acts like a charm in hæmorrhage from the kidneys. If it fails resort should be had to gallic acid gr. x. to gr. xxx. every four hours, or to ergot and sulphuric acid.

**Diuretics.**—Whenever the kidneys are not acting sufficiently, and there are signs of impending dropsy, indicated by swelling of the ankles, diuretics, or remedies which promote the flow of urine, are required. Alkalies which arrest unnatural acidity of the blood are the best, such as the acetates or citrates of the alkalies. Thus :—

Potass. acetatis	.	.	.	.	ʒij.
Spt. juniperi	.	.	.	.	ʒij.
Dec. scoparii ad	.	.	.	.	ʒviij.
ʒj. t.d.s.					

A good diuretic, useful also in cases of dropsy of heart origin, is as follows :—

Potass. citratis	.	.	.	.	ʒij.
Spt. chloroformi	.	.	.	.	ʒiiss.
Tinct. digitalis	.	.	.	.	℥xxx.
Inf. buchu ad	.	.	.	.	ʒviiij.
ʒj. t.d.s.					

**Iodide of Potassium.**—In nephritis resulting from scrofula, syphilis, gout, or lead poisoning, iodide of potassium, in doses of gr. v. every four hours, is a valuable drug, and may be combined with colchicum and ammon. carbonate.

## LIVER.

### FUNCTIONS.

The liver is a wonderful organ, always at work filtering, neutralising, purifying, and manufacturing ingredients necessary to life. It is the central laboratory of the body, the heart of the digestive functions. As an excretory organ it plays the part of a natural poison antidote. The ptomaines of decomposing food and the effete waste of the body itself are alike arrested by it and rendered inert. The intestine is full of noxious poisons. A healthy liver is a living barrier against which they beat in vain.

As a gland the liver is the seat of manufacture of the bile,

an intensely alkaline fluid which keeps sweet the intestine and aids to digest fat and other foods. Healthy bile is a germless antiseptic, and when deficient or absent, the bowel's contents decompose or become putrid. Bile lubricates the digesting food and is the natural aperient of the body. Constipation occurs when the liver functions are sluggish and the organ is working imperfectly. Then, lastly, the liver manufactures a ferment to act upon the grape sugar of food and turn it into glycogen. It doles out this substance to the blood to produce animal heat and force.

### TREATMENT.

**Intestinal Antiseptics.**—There are various remedies which by their antiseptic influence on the intestinal contents tend to aid the ptomaine-destroying functions of the liver. An example of this form of drug is salol or salicylate of phenol in doses of gr. v. to gr. x. given two hours after food. This substance is not decomposed until it reaches the alkaline secretions of the duodenum. Salicylate of bismuth is another antiseptic of similar character. These salts may be combined together as follows :—

Salol.	.	.	.	.	.	gr. v.
Bismuth. salicylatis	.	.	.	.	.	gr. v.
Sodii bicarb.	.	.	.	.	.	gr. v.
Ft. pulv.						

Naphthalene, gr. ij. in pill, also has a deodorising effect on the intestinal contents. Sulphurous acid in doses of ℥xx. every four hours has marked effect as an internal antiseptic, and is found of signal benefit in cases of typhoid fever.

Various drugs used in the form of injections, such as alpha-naphthol, guaiacol, hyposulphite of sodium, partly by absorption, partly by neutralising the poisons of the rectum, are helpful to the liver.

In the matter of food meat should be interdicted and a V.E.M. (vegetables, eggs, and milk) diet substituted.

Suitable purgatives, such as cascara, aloes, and natural



aperient waters, promote intestinal asepsis by carrying off effete matter.

**Cholagogues.**—A study of the action of drugs on the liver functions elicits the fact that there are substances which promote the flow of bile and bodies which have no such influence at all. The most powerful of all cholagogue remedies is exercise entailing deep inspirations. When a person breathes deeply, as he would do during active exercise, his liver and appendages are subjected to a process of massage, by which the bile is forced into the intestine in larger quantity. This is why active exercise promotes the digestive functions.

Frequent meals exert a powerful cholagogue action. Each meal aids the gall-bladder in emptying itself. Women, because they breathe chiefly from the ribs, require food at more frequent intervals than men to secure adequate liver action.

Euonymin is one of the most powerful cholagogue drugs; ox gall, sodium salicylate or benzoate, chlorate of potassium, and podophyllin also conduce to the same effect.

Chloride of ammonium, sulphate of soda, Carlsbad salts, aloes, rhubarb, and hydrastin to a less degree stimulate the biliary flow.

Calomel and mercurial aperients act as irritant antiseptics, deodorising yet forcing the bowel contents onwards and sweeping on the bile in the intestine before it has become absorbed. Such action favourably affects the functions of the liver.

#### CONGESTION, &c.

Man breathes chiefly with his diaphragm and abdominal muscles. Woman's respiration is more largely confined to the ribs, and less to the parts below them. The use of a corset is accountable for the greater frequency of gall-stones among the fair sex. Each movement of inspiration depresses the liver upon the intestines immediately below it. This exerts pressure on the gall-bladder and squeezes out the bile. Under the influence of brisk movement and deeper breathing the gall-bladder is subjected in this way to a process of massage.

The flow of bile is constant, but is largely influenced by exercise and diet.

When sedentary individuals shirk necessary exercise, their gall-bladders are not properly emptied. Constipation and digestive inconveniences ensue from bile deficiency. The bile becomes thicker, and its cholesterin is liable to concrete and crystallise, forming what are known as gall-stones. Now and again these stones pass from the gall-bladder along the bile duct into the intestine. During their passage they occasion one of the most fearful of all human pains—biliary colic.

#### TREATMENT.

**Exercise** is the most essential element in treating a sluggish liver. Any form of active movement which conduces to deep inspiration is good. Daily walking or horse exercise, singing, or reading aloud are instances. Women should wear loose corsets.

**Diet** should be directed to the avoidance of increased gastric acidity. Animal food should be eaten sparingly unless means are adopted by active exercise or manual labour to work or burn it up. Fat in moderation is helpful. Fruit and vegetables should enter largely into the diet. As a rule, alcohol in any form is prejudicial. The sufferer should eat reasonably and masticate slowly.

**Alkaline Waters**, especially Carlsbad salts ʒj. to ʒij in a tumblerful of warm water, decrease acidity and diminish inflammation of the upper digestive tract. Effervescent salines, taken regularly, are serviceable. Sulphate of soda acts specially on the liver. The following is a good draught for congestion of the liver :—

Sodii bicarb.	.	.	.	.	gr. xx.
Sodii sulphatis	.	.	.	.	ʒij.
Tinct. zingib.	.	.	.	.	℥x.
Inf. gent. co. ad	.	.	.	.	ʒj.

Take this draught in a tumblerful of warm water every morning for a week or so.

The strong alkalinity of bile is due to the presence of tauro-

cholate and glycocholate of sodium, therefore soda is *the* alkali for the liver.

**Mercury** must be rigorously avoided in all acute liver affections, but for many minor liver ailments pil. hydrarg. at bedtime is excellent. It must be followed by a dose of haust. sennæ in the morning. Calomel gr. iss. to gr. iv. will suit equally well, and is especially eligible in smaller doses for children.

**Ammonium Chloride** gr. xx. or more every four hours is largely used in the tropics for congestion of the liver. It stimulates the flow of bile, and also acts as an intestinal antiseptic.

**Euonymin** gr. ij. is one of the most powerful cholagogue remedies, and is of signal service in cases of bilious torpor. Podophyllin in  $\frac{1}{4}$ -grain doses acts in the same way.

**Dilute Nitromuriatic Acid** ℥xv. to ℥xxx. may be combined with ammon. chlorid., with succ. taraxaci, and a carminative. It is said to be an excellent preventive of gallstones.

**A Mustard Poultice**, or an ordinary turpentine stupe applied over the liver can be used for pain and heaviness in the region of that organ.

## LUMBAGO

is a severe neuralgic pain in the small of the back experienced on rising up from a sitting or a recumbent position, or on any change of posture involving a movement of the muscles of the back, and being felt hardly, if at all, when the body is in a still position. It comes on quite suddenly, and may be the result of a chill or of any undue strain on the physical powers.

### TREATMENT.

**Absolute rest** in a position in which the pain is not felt is the best cure. It is very difficult to enforce this rule, as the patient being generally able otherwise, will insist on moving.

about ; but it should always be enjoined, as any movement aggravates the pain and makes it more persistent.

**Potass. Bicarb.**—The bicarb. or acet. potass. should be given in doses of gr. xx. to gr. xxx. t.i.d. in half a cupful of water until the urine becomes alkaline.

**Aperients.**—If necessary the bowels must be freely opened. Pil. coloc. and hyos. gr. iv. or any other reliable aperient may be used.

**Exalgine.**—If the pain is very severe, exalgine gr. ij. every three hours will probably be of service. Antipyrin gr. x. or phenacetin gr. viij. may be used with the same view.

**Cimicifuga.**—The tincture ʒss. to ʒj. t.i.d. has been confidently recommended by high authorities.

**Counter Irritants.**—The A.B.C. liniment (equal parts of the liniments of aconite, belladonna, and chloroform) is one of the best of this class of remedies ; or the lin. opii ammon., or the lin. camph. co., or any of the combinations of ammonia, camphor, turpentine, &c., may be used.

**Hot-ironing.**—In an early stage of the complaint, this is one of the most effectual external remedies. The parts (with a blanket between) are to be passed over with a hot iron rapidly, but so that the heat may be sharply felt.

**Plasters.**—A large plaster of belladonna across the loins, or even one of emp. saponis with a little emp. resinæ added, is an extremely useful application. The warmth and support it affords is very grateful to the patient. Enip. menthol has also been recommended. Persons subject to lumbago should wear a belt, preferably of flannel, round the lower part of the body as a preventive

## LUPUS.

A spreading tuberculous infiltration of the skin is called lupus. Its chief seat is the face or nose, but it may occur in any part. It causes great disfigurement, and its course is slow. Lupus should not be mistaken for syphilis, which involves the inner parts also of the nose and probably the throat, nor for

rodent cancer, which does not, like lupus, sometimes begin in early life.

### TREATMENT.

Lupus should be treated as a very obstinate case of scrofula. Potassium iodide in large doses, sulphur, phosphorus, arsenic, cod liver oil, hydrarg. biniodide, all exert more or less curative influence on lupus. Chaulmoogra oil is stated to cure in some cases. Superficial forms, which resemble eczema, will frequently yield to eczematous remedies alone.

**Koch's Inoculations.**—Although Professor Koch's inoculations have been found wanting, and have been proved to be dangerous, yet they established clearly the tuberculous nature of lupus, many cases of which were cured by them. A few cases died, but with the lupus cured.

**Sulphurous Acid.**—The question of a local remedy is important to stay the ravages of the disease and heal up the infiltrated skin. Sulphurous acid applied frequently is almost a specific in some cases.

**Ung. Acid. Pyrogallic. 1 to 10.**—Excellent results have been obtained by the use of pyrogallic acid ointment.

The following is the prescription of a celebrated specialist which proved successful not only in the case for which it was prescribed, but in many others :—

Hydrarg. perchlor.	.	.	.	.	gr. ij.
Potass. iodid.	.	.	.	.	ʒj.
Tinct. cinchonæ.	.	.	.	.	ʒss.
Sp. myristicæ	.	.	.	.	ʒij.
Sp. chloroform.	.	.	.	.	ʒij.
Aquæ caryoph. ad	.	.	.	.	ʒviij.

Misce.

ʒiij. three times daily in water after meals.

Ung. hydrarg. fort.	.	.	.	.	ʒss.
Pulv. hydrarg. ox. rub.	.	.	.	.	gr. iv.
Adipis	.	.	.	.	ʒss.

Misce.

To be gently smeared on at bed time.



Calamin. ppt.	.	.	.	.	.	ʒiij.
Zinci oxidi.	.	.	.	.	.	ʒij.
Hydrarg. subchlor.	.	.	.	.	.	gr. x.
Glycerini	.	.	.	.	.	ʒij.
Aquæ rosæ ad	.	.	.	.	.	ʒij.

Misce.

To be painted on every morning.

## MEASLES.

The symptoms of incipient measles are those of a severe catarrhal cold : feverishness, running from the eyes and nose, cough, &c. On the fourth day the eruption appears, beginning on the face, and extending all over the body. It consists of characteristic blotches, and it continues for three or four days. When it is coming on, and during its presence, it should be carefully encouraged by diaphoretics and avoidance of cold.

Suppression, or a dark-purple colour of the eruption, collapse, or bronchitis are indications of danger. Any carelessness of management may, with such symptoms, quickly lead to fatal results.

### TREATMENT.

The patient must be kept in bed in a room sufficiently darkened to protect the eyes from injury. The temperature should be about 60° F., and retained at that height. The sufferer should remain in bed till all the symptoms have quite abated. When convalescent he may have permanganate baths on two successive nights, and a clean change of aired clothing. After this he may be allowed out of the sick-room, prior to its being thoroughly disinfected.

**Diet.**—A bland liquid diet alone should be allowed. No stimulants should be given, unless medicinally for combating grave symptoms. No strong aperients ought ever to be administered in cases of measles.

**Inunction.**—If there is any tendency for the rash to become suppressed or signs of incipient lung mischief, the patient should at once be rubbed all over, from head to foot,

with olive oil. If this fails, a warm mustard bath should be given.

**Aconite.**—In the first onset, when the symptoms of the fever are marked, tr. aconiti, B.P., ℥ss., combined with liq. ammon. acetatis ℥xx. to ℥xxx., is the best treatment to moderate the catarrhal symptoms.

**Iodine.**—The fumes of iodine produced by placing a few drops of tincture of iodine on a hot penny, are useful for the wheezing and hoarseness resulting from measles.

**Tonics.**—As measles, more than almost any other complaint, may leave behind it serious after-effects, not confined to one organ, but affecting the eyes, ears, nose, or chest, great attention should be paid to avoidance of cold and to the general health during convalescence, and the patient's strength should be well supported by a nourishing diet and suitable tonics, such as syr. ferri phosphatis with cod liver oil, or if any tendency to tubercle should present itself, the following will prove serviceable :—

Calcii hypophosphitis . . . .	ʒj.
Syr. aurant. . . . .	ʒvj.
Aquæ ad . . . . .	ʒij.
ʒj. t.d.s.	

## MENORRHAGIA.

The menstrual periods under the best of circumstances are a great impediment to a woman, but when the flow becomes profuse, and perhaps irregular in its appearance, her life may become a burden to her. Full-bloodedness, intemperance, too frequent childbearing, tumours, and bad labours, excite congestion of the uterine organs, and are the chief causes of menorrhagia.

### TREATMENT.

Ladies who are full-blooded require to live temperately. Often, to get rid of the excess of blood, Nature finds an outlet by increasing the loss at the monthly periods. This should not be rashly checked. Treatment should be directed to the

cause of the plethora. A spare diet, with little meat, and tea or coffee or milk-and-water to drink, is best suited to such a case. Alcohol is always highly prejudicial, and should be sternly forbidden.

**Potassium Bromide.**—In all forms of menorrhagia potash salts exert a powerful curative effect. The potassium bromide, in doses of  $\mathfrak{z}$ ss. morning and evening, is the best drug to give where there is much uterine pain and congestion; but in very chronic cases, where the medicine requires to be taken for any length of time, the potass. chlorate gr. xv. t.d.s. is best. This applies especially to cases caused by what are called fibroid tumours.

**Sulphuric Acid.**—In very profuse hæmorrhage of uterine origin, dilute sulphuric acid, in doses of  $\mathfrak{m}$ xv., or acid. gallic. gr. x., every four hours, is a satisfactory internal styptic. The following is a good combination :—

Ammon. bromidi	.	.	.	.	$\mathfrak{z}$ ij.
Acid. sulph. dil.	.	.	.	.	$\mathfrak{z}$ ij.
Syr. aurant.	.	.	.	.	$\mathfrak{z}$ j.
Aquæ ad	.	.	.	.	$\mathfrak{z}$ viii.
$\mathfrak{z}$ j. every four hours.					

**Ergot.**—An effectual treatment of excessive flow is complete rest, and ext. ergot. liq.  $\mathfrak{z}$ ss. to  $\mathfrak{z}$ j. t.d.s., or ergotin gr. iij. in pil. t.d.s., during the periods, and iron in the form of Blaud's pills gr. x. or tr. ferri perchlor.  $\mathfrak{m}$ xx. t.d.s. during the intervals.

**Lemon Juice.**—A domestic remedy for this form of bleeding is to suck the juice of three or four lemons. A wine-glassful of vinegar will also arrest it if severe, when other remedies are not at hand.

**Hydrastis Canadensis.**—The tincture, in doses of  $\mathfrak{m}$ xv. to  $\mathfrak{z}$ j., is said to be efficacious in checking the hæmorrhage due to tumours, but it must be continued for many months before any marked improvement will be noticed.

**Quinine** in full doses is an effectual remedy in some cases, and it can be used in tonic doses, after the hæmorrhage has ceased, to improve the general system.

**Liq. Arsenicalis** ℥ij. after food is also a valuable tonic remedy in cases due to tumour. It at first aggravates the symptoms, but afterwards its good effects are most marked.

**Aletris Cordial.**—In cases of menorrhagia dependent on congested conditions of the sexual organs, especially when there is a tendency to miscarriage, the ext. viburni prunifolii and aletris cordial are very valuable remedies.

**Sulphur Waters.**—The waters of Harrogate and other sulphur springs, by their alterative effect on the tissues, are generally useful in obstinate cases, but their use requires great caution, and they occasionally increase the flow, at all events for a period or two.

**Potassium Iodide** may be administered in similar cases, or if caused by syphilis. This powerful drug likewise requires careful watching.

## MUMPS.

A painful acute swelling of the parotid salivary glands, with fever and contagiousness, is called mumps. There is much swelling just in front of the ear, and difficulty and pain in opening the mouth or in eating. In an ordinary uncomplicated case mumps is a simple febrile ailment, but every care must be taken to promote the resolution and subsidence of the enlarged glands. When improper treatments are adopted, or the sufferer is subjected to a chill, the complaint is apt to migrate to other glands, such as the breast, testicle, ovary, or other organ.

### TREATMENT.

**Salines.**—A mixture composed of liq. ammon. acetatis 5j. or potassium citr. gr. x. may be given every four hours, to promote resolution, and three sulphur lozenges daily will render the contagiousness less decided and promote quick recovery.

**Warmth to the Head.**—It is essential to keep the inflamed glands warm by means of flannel or swansdown, and, should the disease unfortunately migrate elsewhere, vigorous

poulticing and stimulant mustard applications must be applied to the part in front of the ear, in order to woo it back again to its proper seat.

## NEURALGIA.

Pure blood is the liquid of the battery of life, and the nerves are the insulated wires which carry the current. If the battery is not in order, if the exciting liquid is poor and partly exhausted or filled with impurities, then the nerve currents are weak and the powers of the nervous system impaired. Anything that devitalises the organism, as unhealthy living ; anything which poisons the blood, as malaria, syphilis, gout, or rheumatism ; anything that causes pressure on or inflammation in the nerve itself, will cause nerve pain—agonising acute pain—neuralgia.

### TREATMENT.

**Hygiene.**—Exposure to cold or damp and insufficient clothing are occasionally the exciting causes of neuralgia. Warm flannel underclothing is an efficient protection against the inclemencies of the weather. Regular out-of-door exercise and sea-water baths, followed by friction, are helpful to nerve nutrition. People who are overworked mentally or bodily require rest, and change of habits or change of air will do them good.

**Diet.**—Neuralgic patients require a highly nourishing diet, especially suitable forms of fat. Cod liver oil is most valuable, but, if objected to, cream, butter, or bacon fat can be taken instead. Fats improve vital vigour and enrich the blood, and thus indirectly cure neuralgia.

**Quinine.**—There can be no question as to the striking efficacy of quinine in nearly all forms of neuralgia. It should be given in full tonic doses of gr. iij. every four hours. If the drug produces headache, ℥xx. of hydrobromic acid will seldom fail to make it agree.

**Phosphorus** strikes directly at the root of this disorder. In pill form in doses of gr.  $\frac{1}{50}$  to gr.  $\frac{1}{30}$ , taken after food, it



improves the nutrition of the nerve centres and so influences the controlling actions transmitted to the neuralgic seat of pain.

**Antipyrin.**—To relieve the neuralgic pain of earache, headache, face or brow ache, or of any form of neuralgia, antipyrin is unsurpassed, given in doses of gr. v. to gr. x. every two or three hours until the pain has vanished. Five grains of antipyrin are said to be equal, in pain-allaying power, to gr.  $\frac{1}{30}$  of morphia given hypodermically.

**Phenacetin** is another synthetical drug of undoubted value in many forms of neuralgia connected with the nerves of the head. It should be given in the form of powders or in wafers in doses of gr. v. to gr. x.

**Gelsemium.**—In cases of dental neuralgia, ovarian and other neuralgic pains, the tinct. gelsem. semper. in doses of  $\mathfrak{m}\text{x}$ . to  $\mathfrak{m}\text{xxx}$ . is much used. It is equally serviceable in doses of  $\mathfrak{m}\text{v}$ . in the acute neuralgias and growing-pains of childhood.

**Croton Chloral Hydrate.**—This drug is valuable in most forms of neuralgia connected with the face or head. The dose should be gr. v. dissolved in spt. chloroformi  $\mathfrak{m}\text{x}$ . and water  $\mathfrak{z}\text{j}$ . It answers best in very obstinate cases which resist other treatment, and may at times be combined with ammonium bromide gr. xx. to gr. xxx.

**Salicylates.**—When neuralgia is complicated with rheumatism, sodium salicylate, in doses of gr. x. every four hours, is a good remedy.

**Iron.**—If the patient is anæmic, iron, administered in the form of Blaud's pills or the hypophosphite of iron syrup, will be found *the* remedy, and it may with benefit be combined with liq. arsenicalis, in doses of  $\mathfrak{m}\text{j}$ . to  $\mathfrak{m}\text{v}$ . This combination tends to purify the blood. A useful recipe is as follows :—

Ferri et quin. cit.	.	.	.	.	$\mathfrak{z}\text{ss}$ .
Liq. arsenic.	.	.	.	.	$\mathfrak{z}\text{ss}$ .
Acid. hydrobromic. dil.	.	.	.	.	$\mathfrak{z}\text{j}$ .
Aquæ ad	.	.	.	.	$\mathfrak{z}\text{viiij}$ .
$\mathfrak{z}\text{j}$ . t.d.s.					

**Aperients.**—A sharp purgative, such as a 5-grain pil. col. and hyoscy., or calomel gr. iij. at bedtime followed by a saline draught next morning, will sometimes cure in cases due to constipation or sluggish action of the liver.

**Ammonium Chloride**, in doses of gr. xx. to gr. xl., may be given in cases not relieved by quinine. It is an uncertain remedy, and if the first three doses fail to do good it had better not be continued.

**Opium.**—In all forms of agonising neuralgia, opium in full doses, or given hypodermically, may always be relied on to give at least temporary relief. As it produces constipation, headache, and other unpleasant symptoms, and a patient is apt to become habituated to the drug, it is generally wise to hold opium and morphia in reserve, using them only in those few cases which are unrelieved by the ordinary remedies.

**Potassium Iodide.**—When neuralgia is caused by syphilis, gout, rheumatism, or any chronic thickening of the nerve itself, potassium iodide gr. v. t.d.s. is indicated.

**Local Applications.**—A host of local applications are available for treating neuralgia. Menthol cones are the most widely used preparations of this kind. Blisters over the spine may be used in spinal neuralgias. A mustard plaster to the elbow is asserted to cure neuralgia of the face, and used to the back of neck it is good for neuralgia of the head. The A.B.C. liniment is a very reliable remedy.

## NIGHTMARE.

A common result of indigestion is disturbed sleep and dreams. Some dreams are pleasant and fanciful. An unpleasant horrible scene in which the dyspeptic is an active though hardly willing participant, is a nightmare. Dreams of the blood-and-murder type are commonly the result of errors of diet. Repetition of actions and conversations of the previous day is a serious form of nightmare, as it indicates an overworked brain which urgently calls for rest and change of scene. Children with worms or with brains irritated by

enforced over-study, suffer at times from disturbed sleep and night terror. They must have adequate rest, with treatment of symptoms to obtain relief.

#### TREATMENT.

**Diet.**—Light digestible food is important. Heavy suppers or late dinners, especially if combined with a free use of stimulants, are common exciting causes of incubus. Supper should be light, and consist of a cupful of beef tea, or bread and milk, or a milk pudding. Alcohol in strict moderation at bedtime conduces to repose of a sound refreshing kind.

**Hygiene.**—The patient should sleep on a hard bed, with not too heavy bedclothes, and he should carefully avoid lying on his back. He should allow himself a sufficiency of recreation, and above all should avoid hurry. Children with worms require appropriate treatment.

**Potassium Bromide**, in doses of gr. xxx. at bedtime, is an excellent and harmless soporific for adults who suffer from disturbed sleep, and it acts well in combination with tinct. hyoscyami. It is also rapidly curative in the night terror of children. As a rule, opium, chloral, sulphonal, and other powerful hypnotics should be rigorously avoided.

**Glycerine of Tannin.**—When children suffer from disturbed rest as a result of enlarged tonsils, glycerine of tannin gr. x. to gr. xx. to ℥j. painted twice daily on the throat will have an immediate beneficial effect.

### NIPPLES (SORENESS OF).

The nipples are parts of the body which are only called into requisition at certain times. They are tender, delicate structures, and are easily hurt. If not kept scrupulously clean and dry, or if not previously prepared for baby by the hardening action of spirit, they may become inflamed and excoriated.

Sore nipples are exquisitely painful. The child is not properly fed because the mother dreads the torture to which the child subjects her, and she postpones the necessary feeding as

long as possible. If further neglected the inflammation extends to the breast itself. A mammary abscess and a host of troubles are the consequences of neglect.

#### TREATMENT.

**Hygiene.**—It is always a wise procedure to prepare the nipples—to harden and strengthen them for some considerable time before confinement. Weak spirit-and-water, weak arnica lotions, glycerine and eau de Cologne will do this effectively. Great cleanliness is essential. The nipples should be washed and dried after the child has finished its meal.

**Shield.**—As soon as the nipples become at all sore, zinc shields should be constantly worn, and the baby made to draw the milk through a breast-tube teat without actually sucking from the nipple itself.

**Pulv. Acaciæ** used as a dusting powder suits some cases well, or a powder made by mixing equal parts of powdered gum, bismuth trisnitate, and boric acid.

**Glycerine of Tannin** is most useful sometimes, or glycerine of starch.

#### OBESITY.

A sufficiency of fat is a sign of health. Fat is the fuel of the human lamp stored up to resist disease and keep out the cold. Too much fat-forming food, unconsumed for want of exercise, creates obesity, and overflows the lamp.

A too fat person is hindered in life's race ; he is ungainly and breathless. Half his muscular system is fat. He is muscle-starved—fat-poisoned.

An obese individual can always reduce his weight if he wants to. He must limit his supplies of fat-forming foods, and must help the oxidising powers of the blood to burn up the already large reserves of hydrocarbons by greater activity, more exercise, and little sleep.

## TREATMENT.

**Bantingism.**—A proper diet is sufficient to remove obesity without drugs. All foods rich in hydrocarbonaceous matter—such as sugar, fat, or starch—store up fat in the system. No bread, potatoes, sweet roots, butter, sugar, cream, beer, port, champagne, or spirits should be taken.

Articles allowable are lean meat, poultry, fish, game, eggs, separated milk, green vegetables, turnips, succulent fruits, light wines—as clarets or burgundies—dry sherry, bitter ale.

An alternative plan of treatment consists in subsisting almost entirely for a length of time on underdone beefsteak and hot water in large quantity. Living entirely on skimmed milk has also been suggested as a successful curative measure.

Any alteration in diet should be made gradually, and not suddenly.

**Exercise.**—The corpulent should take as much exercise as possible in spite of a natural disinclination to do so. They must sleep on a hard bed without too many bedclothes, and rise early.

**Occupation.**—Those who are prone to obesity should select a calling which entails anxiety, and necessitates considerable moving about.

**Turkish Baths** are effectual in reducing weight when taken somewhat frequently. Any person intending to adopt this plan of treatment should assure himself of his ability to bear them without danger.

**Vinegar** is frequently taken by ladies to reduce obesity. Its use cannot be too strongly condemned from its injurious effects on the tissues.

**Iodine.**—The favourite method of giving iodine is in the form of the extract of *Fucus vesiculosus*, or sea-wrack. It is the basis of the preparation known as Anti-fat. Seaweed is given to pigs in Ireland to fatten them, and in moderate doses it will also fatten human beings. Therefore to be effectual it must be administered in doses large enough to produce marked debility and annul a desire for food.



**Salines**, such as table salt, liq. potassæ, and alkaline salines, in very large doses diminish fat at the expense of health. Excessive purgation will also serve the same end by carrying off the food before its assimilation has been completed. Moderate laxative action, as a rule, causes people to put on more fat.

**Mineral Waters and Health Resorts.**—The severe regimen and spare diet of various spas, especially those of Carlsbad, Ems, and Kissingen, where life is agreeable and the surroundings pleasant, are largely resorted to by the corpulent, who generally derive much benefit from the course of treatment. The chalybeate waters of Tunbridge Wells and Harrogate in England, or Llandrindod in Wales, are invaluable in cases of extreme obesity due to bad health, where iron is called for to aid the deficient oxygenating powers of the blood.

## PEDICULI.

There are three varieties of pediculi or lice, which attack man. They exhibit a decided preference for unclean, ill-nourished, sickly people. Lice live on blood, and seem to find out instinctively the quarters where they are least liable to molestation. Those that affect the head are the most difficult to dislodge; they roam about upon the scalp, and lay their eggs or nits on the hairs. All pediculi give rise to great irritation of the skin, and increase in number if not destroyed in time.

### TREATMENT.

**Baking the Clothes.**—The body louse common in old people lurks in the clothing. It is therefore essential that the clothes should be subjected to a sufficiently high temperature to destroy the parasites. All underlinen should be boiled.

**Stavesacre.**—There is no more effectual parasiticide than stavesacre. It may be used either in the form of ointment— $\frac{3}{4}$  of the oil to  $\frac{3}{4}$  lard—or a decoction of the seeds may be used as a lotion. Acetic acid is the best solvent of the active principle of the seeds, and this fact may be taken

advantage of by making a vinegar of them by digestion, ℥ij. to Oj., which can be used as a nursery hair-wash. A little simple perfume should be added.

**Spt. Vin. Rect.**—The nits of the pediculus capitis are very firmly glued to the hairs, but if they are moistened with spirit of wine they become loosened, and a fine-tooth comb will readily detach them. If a little hydrarg. perchloride gr. ss. to ℥j. is added to the spirit it makes the application more effectual.

**Mercurial Preparations.**—Ung. hydrarg. ammon. is a favourite domestic remedy. Corrosive sublimate solution gr. j. to ℥j., ung. hydrargyri, or oleate of mercury 10 per cent. will answer equally well.

## PILES.

The lower portion of the bowel contains a large network of veins. When these become inflamed or engorged the disorder is called piles. Frequently the blood coagulates in these veins, and one or more fleshy masses are formed.

Piles are recognised by the presence of pain, heat, and swelling at the orifice of the bowel. When visible they are termed external piles; when high up in the rectum and out of sight they are described as internal piles. The latter are prone to bleed.

The blood circulating in the bowel, and in other parts of the digestive tract, is taken to the liver, and there filtered and purified by means of the hepatic juices. If it were not for this arrangement unclean feeders or persons of constipated habit would quickly suffer.

Liver congestion, or liver sluggishness, prevents free return of blood from the abdominal organs. The hæmorrhoidal veins are the first to feel the effects of this retardation of movement. Hence the presence of piles is an indication of a perverted liver, and gentle persuasive medication directed to that organ will go far to relieve them.

TREATMENT.

**Hygiene.**—It is important to bear in mind that the anus or lower orifice of the bowel is just as susceptible to outside influences as the throat. Persons with severe piles or other bowel perversions should use a commode containing hot water mixed with some suitable disinfectant, such as carbolic acid, "Sanitas," or Condyl's fluid. Brisk open-air exercise is the best preventive of hæmorrhoids. Wooden or cane bottomed chairs alone should be used to sit upon.

**Poultices.**—Nothing relieves acute piles so markedly as hot poultices or poppy fomentations applied to the part. Enemata of starch or hot water slightly coloured with pot. permang. are more effective in cases of internal piles. A hot hip-bath and perfect rest are good treatment for weakly subjects where fissure or fistula may be an outcome of want of care.

**Diet** should consist of plain unnourishing food in large quantity—a substance-forming diet to help the bowels to act. Alcohol, tea, or coffee, and all highly seasoned dishes are bad.

**Suppositories.**—Ung. gallæ c. opio is an old-fashioned application to relieve piles, and it has stood the test of time. It is undoubtedly most effectual. Suppositories containing in each pulv. gallæ gr. iv., pulv. opii gr. ss., are more cleanly to use. Where there are ulcers or abrasions a suppository containing iodoform gr. iij. or an equal quantity of aristol is best. Cocaine gr. ss. in suppository or 10-per-cent. ointment may be used prior to the action of the bowels to allay acuteness of pain.

**Bismuth.**—As an external remedy bismuth is most useful to allay the irritation and itching which so often accompany piles. It is used as ointment, ʒj. or more to ʒj. ung. simp. or it may be mixed with ung. gall. et opii in like proportion. Bismuth suppositories are also used, and in some cases it may be desirable to add gr.  $\frac{1}{4}$  morph. hydrochlor. to each.

**Hazeline** is perhaps the best remedy for bleeding piles.

It may be injected into the bowel and taken internally in doses of  $\mathfrak{z}j.$  every four hours. This combined plan of treatment seldom fails to arrest the hæmorrhage. It may also be applied externally on absorbent sheep's wool.

**Natural Aperient Waters.**—A course of a reliable natural aperient water, such as Carlsbad, Friedrichshall, Hunyadi János, Apenta, or Franz Josef, taken in properly gauged doses stimulates the digestive secretions, and acts on the bowels gently. Natural aperients are most effectual curative agents, as they remove the exciting cause. A good tonic aperient water is made thus :—

Ac. sulphuric. dil.	.	.	.	.	$\mathfrak{z}iss.$
Magnesiæ sulph.	.	.	.	.	$\mathfrak{z}iiss.$
Quininæ sulphat.	.	.	.	.	gr. xij.
Elixir simpl. (B.P.C.)	.	.	.	.	$\mathfrak{z}iv.$
Aquæ ad	.	.	.	.	$\mathfrak{z}viiij.$

$\mathfrak{z}ss.$  to  $\mathfrak{z}j.$  in a tumblerful of water every morning or three times a day.

**Aperients** of various kinds, such as aloes, cascara, podophyllin, euonymin, are at times beneficial for piles. They must be given in small laxative doses which secure regular daily action, and they should always be combined with a sedative, such as hyoscyamus or belladonna to prevent any irritating effect. The old-fashioned dec. aloes co., in doses of  $\mathfrak{z}ss.$ , combined with tinct. nuc. vom.  $\mathfrak{m}v.$  and aq. menth. pip.  $\mathfrak{z}ss.$ , is an excellent pile-mixture.

**Sulphur.**—In the form of confectio sulphuris  $\mathfrak{z}j.$  every morning, sulphur always relieves piles. Equal parts of confect. sulph. and confect. sennæ,  $\mathfrak{z}j.$  for the dose, may be used instead, or a teaspoonful of a mixture of sulphur and magnes. lev. in equal bulks in a glass of milk o.n.h.s.

**Soap.**—Hard soap gr. v., made into pill form, is a little-known but very useful remedy. It serves to lubricate the digestive passages and render the lower bowel's action easier. White vaseline taken internally,  $\mathfrak{z}ij.$  or more, has a similar effect.

## PLEURISY.

There is no disease which creates so much misconception in the public mind as true pleurisy. False pleurisy is extremely common—an everyday form of neuralgia affecting the chest wall. There is an absence of the severe febrile symptoms of the true form. Real pleurisy is inflammation of the pleura, the membrane that lines the inner side of the chest and invests the lung.

Inflammation roughens the smooth glistening lubricated surface of this pleura, and one of two things happens if it does not get well quickly—either the two surfaces become glued together, forming adhesions, or liquid is thrown out to separate the surfaces, causing effusion or dropsy. Occasionally matter forms, and that, of course, is a grave, if rare, complication.

## TREATMENT.

False pleurisy (pleurodynia) is pain in the chest wall, dependent on neuralgia, rheumatism, or dyspeptic troubles, which should be treated accordingly.

**Hot Fomentations.**—To allay the acute pains of pleurisy, the patient should remain quietly in bed, and have a light diet. Hot poppy or chamomile fomentations give great relief at the onset. Mustard leaves are best in slight cases.

**Strapping the Side.**—Firm strapping of the affected side with strips of adhesive plaster placed obliquely in the direction of the ribs is the best-known treatment to allay pain and secure rest.

**Antipyrin.**—An effectual remedy to allay the inflammation is antipyrin in gr. x. doses, combined with liq. ammon. acetatis  $\mathfrak{z}\text{j}$ . every four hours.

**Purgatives.**—If the bowels are constipated it is always wise to administer a brisk saline, such as mag. sulphat.  $\mathfrak{z}\text{vj}$ . to  $\mathfrak{z}\text{j}$ . in water before food. This greatly helps the curative action of other drugs. A course of natural aperient waters may be prescribed.



**Potass. Iodide.**—To promote absorption of fluid, iodide of potassium in gr. v. to gr. x. doses, is one of the best remedies. The tinct. iodi  $\text{ʒss.}$  ad  $\text{ʒj.}$  may at the same time be painted on the chest.

## POULTICES.

When the skin or structures beneath it are inflamed it is often necessary to apply poultices of various kinds. The object of them is the application and the maintenance of moist heat to the part. Poultices should be covered with oiled silk or jaconette, and changed quickly so as to avoid cold.

**Linseed.**—To make a linseed poultice properly calls for skill which few but those who are trained possess. Place boiling water in a scalded basin, and then quickly add the meal with constant stirring until it is of the consistency of a stiff paste. Spread the mass evenly, and to the depth of a quarter of an inch, upon a piece of muslin or linen; smooth the surface with a knife before the fire, and roll up like a plaster. The warmth ought to be just what the cheek can bear. When it is so, unroll upon the affected part, cover with oiled silk, and lay over it a thick pad of cotton wool.

**Mustard.**—Mustard poultices or leaves are strong counter-irritants. They are chiefly needed in cases of deep-seated inflammations, especially those affecting the chest, and should not be kept on longer than twenty minutes. Where sustained counter-irritation is desirable the mustard should be diluted with linseed or bread, and then made into a regular poultice.

**Bread.**—Bread poultices are lighter than linseed, but they are more suited to small surfaces, such as inflammations affecting the extremities or the face. To make a bread poultice put breadcrumbs into a basin and pour upon them, with constant stirring, boiling water. Allow the superfluous water to drain off before the fire, and then apply spread on muslin or linen, and cover the whole with oiled silk.

**Antiseptic.**—Various drugs of an antiseptic nature—such as iodoform, salicylic, carbolic, or boric acids—can with benefit

be incorporated with or sprinkled on a bread poultice, and this is far preferable to the dirty unsatisfactory mixture of bread and charcoal called a charcoal poultice.

**Substitutes for Poultices.**—Spongio-piline is made of sponge and wool felted together, and coated on one of its surfaces with an impermeable substance. It is dipped into boiling water just before using, or, as its surface is absorbent, it may be made the vehicle for applying sedatives or stimulants, such as opium or turpentine, according to the requirements of each case.

Tarred jute makes an excellent antiseptic application to absorb discharges. It should be well expanded by holding it before the fire, enveloped in a piece of antiseptic gauze, and applied to the part.

**Fomentations.**—Flannels wrung out of hot water are also used in the place of poultices. They are lighter, and, like spongio-piline, can be readily utilised for the application of suitable drugs. Ext. papav. ʒij. to three pints of hot water forms an excellent sedative fomentation for inflamed joints, &c. To prepare a fomentation, pour boiling water into a large basin, place over it a stout towel, place the flannel in the centre, press it into the water, and then by twisting round the ends of the towel squeeze out the superfluous moisture. Apply quickly while hot.

## PSORIASIS.

Psoriasis is at present but little understood. Even its exciting cause is unknown.

Some skin disorders are intensely irritating ; others itch but little. Psoriasis belongs to the latter category.

The eruption is chronic and persistent, and consists of roundish slightly-raised red patches, thickly covered with pearly-white scales. The form which attacks the palm of the hand is the most inveterate. Psoriasis is a disease of the robust. It does not impair the general health, and, unlike eczema, rarely attacks children under six years of age.

Defective nutrition or nervous influences play some part in determining its appearance, but how is not quite known.

## TREATMENT.

**Hygiene.**—To improve nutrition free out-of-door exercise will generally be found beneficial. This may be combined with sea air and sea bathing—by residence at the seaside in very severe cases.

**Baths.**—Warm alkaline baths, or baths of the sulphuretted waters of Harrogate and other inland resorts, are very effectual. The waters of La Bourboule in Lower Auvergne, are said to be curative.

**Diet.**—It has been asserted that psoriasis is due to a want of fresh vegetables. Therefore a nourishing diet, containing a small quantity of unboiled vegetables, given frequently, will do good. Onions, watercress, salads, tomatoes, and all forms of fruit, may be recommended with confidence. Cod liver oil is a useful food-adjunct if patients are getting thin, and feel debilitated.

**Arsenic.**—Liq. arsenic., given in full doses of  $\text{℥v.}$  after food, is the best remedy we possess. Too small doses fail, excessive quantities do harm. Arsenic at first aggravates the symptoms and makes the spots more red. The patient should be warned of this, otherwise he will discontinue taking the remedy at a time when it is positively working a cure. Donovan's solution, in doses of  $\text{℥x.}$  to  $\text{℥xx.}$ , is sometimes better in its action than Fowler's solution and other arsenical preparations.

**Potass. Iodide,** in large doses of gr. x. or more t.d.s., has lately been suggested as curative.

**Phosphorus** in pill form, in doses of gr.  $\frac{1}{60}$  to gr.  $\frac{1}{30}$  t.d.s. after food, improves nutrition and nerve force. As such it may prove a useful remedy for psoriasis. A course of electricity—the constant current—would serve the same end.

**Bromides.**—The bromide of ammonium in doses of gr. xx. to gr. xxx. is of benefit where headaches and neurotic symptoms are an accompaniment of the rash. The salt may be given in combination with tinct. *actææ racemosæ*  $\text{℥v.}$

**Ung. Hydrarg. Ammon.** is one of the best applications to use locally.

**Liq. Carbonis Detergens**, pure or diluted with spirit, and painted on the affected parts, is serviceable in many cases.

**Ung. Acid. Pyrogallic.**—Gr. x. to gr. xx. of pyrogallic acid, mixed with ung. simpl. ℥j., is a strong remedy which quickly cures, but requires caution in using. The disease is very apt to return after its use.

**Ung. Acid. Chrysophanic.**, and the Goa powder itself, have of late years attracted much attention from specialists. The drug produces much staining of both the skin and the clothes, and, as in the pyrogallic-acid ointment treatment, the rash frequently returns again, often with greater virulence than before.

## RHEUMATISM.

There are few diseases which are more tedious and painful than the protean malady called rheumatism.

For the most part it attacks the sinews and fibrous structures of the body. Therefore the joints, the muscle casings, and the heart's valves suffer most.

Rheumatism is caused, like gout, by an excess of uric acid or blood poison in the system. It depends greatly on climatic conditions, and on deranged digestion. Any deterioration of the general health will excite it.

Rheumatic pains sometimes change their location, wander from one part of the body to another, and visit various joints in succession.

The nature of rheumatism is obscure. Fermentative acids, such as lactic acid, are formed in the blood, probably through the influence of microbes. This impedes the oxidation and elimination of the uric acid, which in consequence is retained in the system.

### TREATMENT.

**Rest.**—Every sufferer from acute rheumatism must be kept in bed for three weeks after all the acute painful enlarged joints are well. The remedies used may remove the actual symptoms in a few hours, but in reality they are only sup-

pressed and kept under. If the patient gets up too soon he runs great risk of getting his heart organically and permanently diseased.

The inflamed joints should be well wrapped up in cotton wool.

**Turkish Baths** to promote skin action are serviceable in chronic forms of rheumatism, taken regularly.

**Diet.**—In acute rheumatism a strictly vegetarian diet has been found most useful, and such articles as milk and water, barley water, milk puddings, grapes, and fruit should be mostly relied on.

In chronic rheumatism a light wholesome diet, with a moderate allowance of meat, will suit best. Beer and saccharine wines are baneful as a rule.

Celery eaten freely and habitually is an efficient preventive and cure for rheumatism. It may be taken boiled, and the water of this drunk.

**Climate.**—Rheumatic people, as a rule, should live on high ground which is free from moisture or dampness. A gravel or sandy soil is best.

In low-lying marshy localities rheumatism is very prevalent.

**Soda Salicylate.**—The most effective remedy for acute rheumatism is soda salicylate in doses of gr. xx. every two hours, until the pains and inflamed joints have completely subsided. It should then be given for a fortnight in smaller doses sufficient to keep the system under the influence of the drug. Many practitioners prefer salicine, in doses of gr. xx. every two hours.

**Alkalies.**—As solvents of uric acid the salts of potassium and lithium are very serviceable in rheumatic affections—the bicarbonate, acetate, or citrate of the former in doses of gr. xx. t.d.s., or gr. x. of the citrate of the latter t.d.s.

**Cascara Sagrada.**—When constipation is a feature of the disorder, cascara will be found very serviceable, and it may be combined with soda salicylate in acute cases.

**Salol.**—The salicylate of phenol in doses of gr. v. to gr. x.



has been much lauded, but it is inferior to the soda salt in acute forms.

**Potass. Iodide.**—When a relapse of acute rheumatism occurs—and this may arise occasionally from want of care or getting up too soon—salicylates will generally fail to control the symptoms, and then potass. iodide, in doses of gr. v. every four hours, is the best remedy to give.

**Antipyrin** has a great effect on the pains, given in doses of gr. x. every two hours, but as it is only palliative it should be used solely for that symptom. Tinct. actææ racemosæ in doses of ℥xxx. is also effective in reducing the pain.

**Blisters over Heart Region.**—Should the heart unfortunately become affected in a case of acute rheumatism mustard poultices should be applied to the heart region, or small fly blisters may be used if a stronger action is wished for.

**Sulphur.**—Compound sulphur lozenges taken regularly and habitually are said to be most beneficial in chronic rheumatism. The use of sulphur in this respect is very old. A favourite form of administration was the ‘Chelsea Pensioner.’ Guaiacum is also much used in chronic rheumatic affections. It is another ingredient of the ‘Chelsea Pensioner.’

**Cod Liver Oil.**—Many cases of chronic rheumatism are dependent on lowered vitality. By improving nutrition by means of ol. morrhuæ and tonics, the disease will generally become amenable to cure.

**Embrocations.**—A variety of drugs used locally have a very decided influence on the inflamed joints. Ol. camphoræ is the best application in acute forms, and this may be combined as follows :—

Tinct. opii . . . . .	ʒiv.
Chloroform . . . . .	ʒij.
Ol. camphoræ ad . . . . .	ʒiiss.

Mix, and shake before using.

Cajuput oil, turpentine, ammonia, tinct. capsici, lin. potass. iodidi c. sapone, and many others will suggest themselves in individual cases.

All embrocations should be well rubbed in with a certain amount of friction or massage. Massage alone or ordinary rubbing of the painful joints will of itself do good, especially in muscular rheumatism.

## RINGWORM.

Ringworm is a species of fungus and is highly contagious. It finds in children a congenial soil for growth. The disease occurs on any part of the body, but chiefly on the head. The diseased hairs become detached, brittle, and lustreless ; they break off close to the head, leaving a round bald patch, and, microscopically, they are seen to be loaded with spores.

Ringworm is a very obstinate complaint. It often continues for a very long time, and resists every mode of treatment. Six weeks is perhaps the shortest time in which a cure can be effected.

Naturally the disease wears itself out in course of time, and the remedy that is tried last often gets the credit.

### TREATMENT.

**Hygiene.**—The hair should, as a rule, be cut as short as possible, so that local applications may be thoroughly applied. Once every day the head should be thoroughly washed with carbolic soap and warm water to remove the fungus débris and applications of the previous day. All towels, brushes, and combs used by the sufferer should be kept separate.

**Hydrarg. Oleatum.**—The 10 per cent. oleate is perhaps the most effective of all parasiticide cures for ringworm. It should be pencilled lightly over the part every night.

**Ung. Hydrarg. Ox. Rub.** is an effective remedy for most forms of ringworm ;  $\text{ʒss.}$  to  $\text{ʒj.}$  of benzoated lard is about the correct strength to use for ringworm of the head, but for ringworm of the eyelashes (*tinea tarsi*)  $\text{gr. x.}$  to  $\text{ʒj.}$  would be sufficiently powerful.

**Citrine Ointment.**—The following plan is a good one.

The part is first washed with warm water and soap and then soaked with a sulphate of zinc lotion ℥j. to ℥j., which is allowed to dry on, then a little of an ointment, composed as follows, is to be rubbed in :—

Creosote . . . . .	℥viii.
Citrine ointment, dilute . . . .	℥ss.

This routine is to be employed every morning.

**Acids.**—Certain strong acids have a reputation in ringworm treatment. The strong acetic acid, a strong solution of oxalic acid, and sulphurous acid are all reputed to cure. Acid. acetic. fort. combined with hydrarg. perchlor. gr. iv. to ℥j. is undoubtedly a good application. Carbolic acid (1 in 10 sp. vini r.) and tinct. iodi (℥ss. to ℥j.) are also remedies which may be pencilled over the part with a view to destroy the fungus.

**Cod Liver Oil Poultices.**—In obstinate cases a codliver oil poultice will act like a charm, especially if the patient is weakly. Ol. morrhuxæ is to be applied very freely under an oilskin cap until the head is practically as clear as a billiard ball. This removes not only any eruptions, but also all the hair, but the fresh growth is generally unduly vigorous.

**Goa Powder** is a useful remedy, but possesses the disadvantage that it stains both the skin and clothes. The powder itself may be used moistened with vinegar or lime juice, or chrysophanic acid ointment, ℥j. to ℥j. may be applied, or the solution of it in chloroform the same strength.

**Sulphur.**—Ung. sulphuris is commonly resorted to in obstinate cases which resist other treatment. Sulphur is a powerful parasiticide, and in various forms may be used to cure ringworm. Sulphurous acid painted on frequently, gunpowder mixed with lemon juice to make a paste, sulphide of calcium lotion, are forms of treatment which will suggest themselves in different cases. A ringworm ointment which had obtained considerable reputation was found to consist of sulphur ointment slightly coloured and flavoured, and the directions given along with it, and to which great importance

was attached, were to the effect that no water was to be applied to the part while the ointment was in use.

**Croton Oil.**—A sure and speedy remedy, but requiring very careful watching, is croton oil, used in the form of an ointment or liniment, with a little ether added to help its penetrative powers. This should not be used for children under ten years of age, and only small surfaces should be smeared at a time. An effective plan of using croton oil consists in applying lin. crotonis with a brush and following this by a poultice.

**Liq. Carbonis Detergens and Sodium Ethylate** painted on have cured cases.

**Ink.**—Comparatively harmless substances, such as ink, vinegar, lard, and oil, or even cold water, applied on linen, have been set forth as curative agents. They were probably the last remedies used, and, as such, got credit for work which they in no wise performed. Solution of ferrous sulphate, ℥j. to ℥j. has the same effect as ink, and is cleaner.

## ST. VITUS'S DANCE.

This disorder, with its convulsive movements and ludicrous gesticulations, has a curious history. In the fifteenth century the entire population of Strasburg was attacked by a peculiar nervous affection, and the sufferers made pilgrimages to the shrine of St. Vitus. Faith and exercise cured them.

Chorea (as it is sometimes termed) prefers for its victims young girls. The patient is in constant agitation; involuntary movements of voluntary muscles occur—the will cannot stop their action. For the time being the muscles are mad.

Rheumatism has some connection with it. The complaint is infectious, children being highly imitative. Frights, irritation from worms or teething, or the influence of a neurotic hysterical mother, are exciting causes.

Nature is slow in effecting a cure, but if her efforts are stimulated by appropriate treatment, she will do her share to help.

## TREATMENT.

**Hygiene.**—The patient should be encouraged to exert his will to control the involuntary movements. Firm, kind treatment will generally do wonders in these cases. Systematic galvanism or massage often aids recovery. If the sight is defective the eyes must be attended to and spectacles ordered if necessary.

**Alcohol**, given medicinally, is beneficial in some cases.

**Potassium Bromide** is one of the best remedies, given in full doses and combined with chloral or succus conii, when the movements are continued during sleep.

**Liq. Arsenic.** is indicated in chronic cases uncomplicated by any other disorder. It should be given in gradually increasing doses. It may be combined with iron in anæmic cases thus :—

Liq. arsenic.	.	.	.	.	.	miss.
Tr. ferri perchlor.	.	.	.	.	.	℥vj.
Glycerini	.	.	.	.	.	℥x.
Aquæ ad	.	.	.	.	.	ʒij.

For a dose.

In other cases it gives good results combined with ergot—liq. arsenic. miss., ext. ergot. liq. ℥v. for a dose.

**Calcium Sulphide**, in doses of gr.  $\frac{1}{10}$  or more, is specific in many cases, and cures when arsenic and bromides fail.

**Zinc Sulphate** gr. j. to gr. ij., combined with belladonna gr.  $\frac{1}{8}$  in the form of pill, is invaluable in very inveterate forms.

**Sodium Salicylate**, in full doses of gr. v. to gr. xv. every four hours, is the best remedy in cases complicated with acute rheumatism.

**Calcium Chloride** gr. x. to gr. xx. in syrup is excellent in cases where the tonsils are enlarged or a tendency to enlargement of glands exists.



## SCARLATINA.

It is not, perhaps, the deaths from scarlet fever itself that are to be most dreaded, as they are inevitable and to be expected in malignant forms of the disease. The sequelæ or after-effects of the fever in those who recover are most far-reaching in their power of maiming the structures of the body. Disease of the kidneys, permanent deafness, diseases of the joints, enlarged glands, are but a few of these sequelæ. The fever seeks out the weak points of the organism and starts them into unhealthy activity.

Scarlatina means a body full of special microbes, which by their irritant action inflame the throat and redden the surface with a scarlet rash, and subsequently cause a general exfoliation of the skin and linings of the kidney passages when the blood has ejected the bacilli.

## TREATMENT.

**Rest in Bed.**—Patients with scarlatina should always remain in bed, or in one room, out of draughts, until the skin-peeling has ceased. A chill induced by getting up too soon may bring on dropsy.

**Isolation.**—Where the patient lives in a densely populated district, or where there are other children in the same house, it is a wise measure to send the case forthwith to the hospital. If this is not done the patient can be effectually isolated in a room at the top of the house. Scrupulous attention to antiseptics will generally entirely check the spread of the complaint. A sheet kept constantly wet with 1 in 40 carbolic lotion should be hung up outside the door of the room and suitable disinfectants plied freely in the room.

**Diet.**—Owing to the swelling of the throat and the state of the stomach, liquid nutriment of a kind suitable for fever patients must be alone given. Milk and lime water, grapes, jellies, barley water, and ice to suck, are examples of suitable articles. Should the kidneys unfortunately become affected the patient should at once be placed on an exclusive milk diet

**Inunction.**—As soon as the skin begins to desquamate, it should be the attendant's object to prevent the germ-laden particles of skin from floating about in the air. This can be most effectually done by anointing the body freely with sweet oil or vaseline to which some disinfectant has been added. Inunction properly effected promotes skin action, eases the kidneys, and prevents the infection of others. A useful formula is as follows :—

Acid. carbolic.	.	.	.	.	.	ʒss.
Ol. eucalypt.	→	.	.	.	.	ʒss.
Vaselin.	.	.	.	.	.	ʒiv.
Misce.						

**Aconite.**—In the first onset of the disease, where the fever is high, aconite, in  $\mathfrak{m}\mathfrak{j}$ . doses of the B.P. tincture, combined with ʒj. liq. ammon. acetatis, is an excellent fever mixture to relax the arteries and promote skin action. A quarter of this dose should be given to children between two and ten years every half-hour for eight doses, then every two hours.

**Bisulphite of Sodium** gr. ss. every hour, in syrup, is a pleasant remedy, and is said to cut short, or at least to mitigate the severity of, the disease. It also greatly reduces the liability to after-effects. Sulphurous acid mixed with syr. aurant. is an equally pleasant remedy, and children like it.

**Ammonium Carbonate.**—A valuable stimulant in cases of the malignant type is ammonia, of which the carbonate is the best and most active salt to give. The dose is gr. ij. to gr. v., in a little syrup, or incorporated with an effervescing mixture.

**Belladonna** is strongly recommended by the homœopaths as a preventive.

**Quinine** is a favourite remedy with some practitioners, in doses of gr. ss. to gr. ij. of the sulphate every four hours.

**Iron.**—To prevent sequelæ, to promote strength, and improve the blood, iron is an invaluable remedy. It should only be given when the fever has subsided, and the syr. ferri iodidi, in doses of  $\mathfrak{m}\mathfrak{x}\mathfrak{x}$ . to  $\mathfrak{m}\mathfrak{x}\mathfrak{x}\mathfrak{x}$ ., is the best form in which to administer it.

## SCIATICA.

Neuralgia in the region of the buttock and back of the thigh is termed sciatica. The pain occurs in paroxysms shooting down the leg even to the foot. It is alternated with numbness, tingling, stiffness of muscles, and other highly unpleasant symptoms. The severity varies much in different cases.

The sciatic nerve is the largest nerve in the body. It is deeply located in the buttock and back of the thigh, and is most difficult to reach by treatment.

Sciatica arises in many ways, but the chief causes are constipation, rheumatism, and exposure to wet and cold. Uterine complaints, strains, or over exertion may likewise bring it on.

## TREATMENT.

**Rest** in recumbent posture is essential in recent cases.

**Antipyrin**, in doses of gr. x. or more every four hours, is the best remedy for sciatica. It may be combined with other drugs to make it still more effective, such as gelsemium or *actæa racemosa*. Antipyrin is especially valuable in the early stages, and when the complaint is due to cold or exposure.

**Actæa Racemosa**, in doses of ʒxx. to ʒxxx. t.d., is also a remedy of known power. It acts well in combination with antipyrin.

**Aperients**.—A distended bowel is often the cause of sciatica. If constipation be present a brisk cathartic should be administered. Croton oil, in full doses, has been suggested in such cases, but less violent aperients should be first tried. Guaiacum mixture ʒj. every four hours is a useful alterative aperient to give.

**Iodide of Potassium**.—If caused by gout or rheumatism pot. iodid. is a good remedy, as follows :—

Potass. iodidi . . . . .	gr. xl.
Vin. colchici . . . . .	ʒxl.
Spt. amm. arom. . . . .	ʒj.
Syr. aurant. . . . .	ʒj.
Aq. ad . . . . .	ʒviiij.

ʒj. every four hours.

**Sodium Salicylate** in gr. xv. doses cures some, but fails in many cases.

**Sulphur.**—It has been suggested to wrap the part affected in bandages freely dusted with lac sulphur. This plan of treatment is undoubtedly efficacious in muscular rheumatism of the parts. It is equally effective in lumbago.

**Blisters.**—Embrocations of all kinds are of very little service. They do not influence the deeper parts where the nerve is located. Blisters applied alternately to the back of the hip, knee, and ankle are more effective, and seldom fail to reduce the pain. Even the actual cautery has been applied in inveterate cases, and with very satisfactory results.

**Turpentine** ℥ss. at bedtime is a successful though powerful remedy, but should not be given unless other safer remedies fail.

**Nerve Stretching.**—By bending the thigh forcibly on the abdomen the sciatic nerve is put on the stretch, and cases of long standing have been cured at once by this procedure. Galvanism is sometimes of service, but often fails.

## SCROFULA.

Consumption is scrofula affecting the lung, but scrofula may attack any other part of the body—the bones, the glands, and the joints. Scrofula is deposition of tubercle microbes in a part, which cause it to increase in size and form a hard, indolent swelling. The glands of the neck are the most usual sites for the germs to grow in. This disease attacks children worst, and may be inherited or acquired. Spring and autumn are its favourite seasons, and acute fevers bring it out if latent. Spinal curvature is due to scrofula of the vertebræ. White swelling is scrofula of the joints. Very enlarged glands and indolent ulcerations or abscesses signify scrofula of the glands.

### TREATMENT.

**Sea Air.**—In the early stages, residence at the seaside, combined with judicious sea bathing, will generally work

wonders. It may even completely annul the tendency. Margate has a high reputation in this respect.

**Iodine.**—The benefits of sea air and sea water are commonly attributed to iodine, but it is probable that the chloride of sodium and the greater preponderance of ozone have more effect, being relatively in considerable quantities. Still, iodine is a remedy having undoubted power in cases of scrofula. The tincture can be used locally as paint. Potass. iodid. and syr. ferri iodidi can be given internally at the same time. Burnt sponge gr. x. to gr. xx. was formerly much used as a remedy for scrofulous affections. It contains a small percentage of iodine.

**Cod Liver Oil.**—Those who suffer from scrofula are not necessarily thin, but their constitutions are weakly, and require support. Cod liver oil or fats of a similar kind possess marked restorative qualities. By improving the quality of the blood and strengthening the nervous system, the organism is put into a position to throw off this disease. Ol. morrhue is especially necessary in scrofula affecting the ear, eye, or nose.

**Sulphur.**—Many inveterate cases which resist other drugs yield promptly to sulphur : gr. iij. t.d.s. is the dose. It must be continued for a length of time, and, should it produce colic or diarrhœa, a carminative ought to be given with it. The internal treatment by sulphur may be combined with external applications, as in the case of iodine. The best way to apply sulphur outwardly is to make a paste of lac sulphuris with water and apply it to the part on oiled silk or gutta-percha tissue, kept in place by a bandage. The influence of this is especially manifest in scrofulous disease of joints. For sores, abscesses, or ulcerating glands, the sulphides in doses of gr.  $\frac{1}{10}$  to gr. ss. t.d.s. may act better than sulphur.

**Arsenic.**—When scrofulous glands require rousing—to stimulate them to healthy action, arsenic is one of the best drugs to give, in doses of  $\mathfrak{mij}$ . to  $\mathfrak{m}\mathfrak{v}$ . of the liquor after food.

**Phosphorus.**—To improve vitality and give the body power to drive out or throw off disease, resort should be had to phosphorus—the pure drug in doses of gr.  $\frac{1}{30}$  to gr.  $\frac{1}{30}$  in



pill t.d.s. after food, or the hypophosphites in doses of gr. v. to gr. x.

**Calcium Chloride.**—Another exceedingly efficacious remedy in most forms of scrofula is ehloride of calcium in doses of gr. x. to gr. xx. t.d.s.

**Mercury.**—It is a common practice in cases of white swelling to wrap the joint in what is called Scott's dressing. Ung. hydrarg. co. is spread on strips of lint, which are applied in rotation. Over this, adhesive plaster in strips is adjusted. Scott's dressing is most beneficial in the early stages of the disease.

**Soft Soap.**—In mesenteric disease or consumption of the bowels, in caries or inflammation of bone, and for enlarged glands, soft soap, combined with gentle friction, is a most useful resolvent.

**Iodoform.**—A usual remedy to apply to the indolent ulcerations of scrofula to promote healing is iodoform ointment. The same drug can be sprinkled on parts which are hardly accessible to a salve. It has lately been suggested to inject iodoform emulsion into chronic abscesses and scrofulous glands with due antiseptic precautions, and remarkable results are said to have been obtained.

**Galvanism.**—Where usual remedies fail, strong electric currents passed through the part should have a careful trial. General or local massage and compression of indolent swellings are also of considerable absorbent and resolvent power.

## SKIN (CARE OF).

A most important precept for the preservation of health is to care for the skin—to wash therefrom the dirt and excretions. If necessary ablutions are neglected the pores are half closed and unfit for their functions. More waste matter should be discharged through the skin than by the whole of the other excretions. If the glands are partly blocked the perspiration cannot get through, and the extra work of elimination must be done by the kidneys and lungs, and sometimes they are not

capable of doing it. That marks the starting-point of a variety of unpleasant ailments.

The daily use of the cold bath in the morning is highly conducive to the preservation of health, not only by its cleansing effects—removing effete débris and keeping the pores open and capable of performing their natural function—but also by its bracing effect on the system generally, so fortifying it as to lessen the liability to take cold readily. Those people who cannot take the cold bath without a feeling of shivering afterwards should try the expedient of adding a little hot water to the bath, so as to make the temperature comfortably cold; and indeed this precaution should always be taken—in winter at any rate—as there are very few people to whom the shock of extreme cold is really beneficial. The use of the flesh brush before entering the bath is an excellent practice. It removes adherent débris from the skin, and by stimulating the vessels on the surface it tends to promote the afterglow which it is necessary should always be established.

The condition of the skin is a most important diagnostic indication in disease. When it is hot and dry it is a sure sign that there is something amiss, and when, either by the efforts of nature alone or under the influence of diaphoretic or sudorific remedies, it becomes moist and soft, this may be regarded as a favourable turning-point in the case. Hence the importance of this class of remedies. It can never be wrong, and may often be of inestimable advantage, to administer such a remedy as liq. ammon. acct. whenever the skin is in the abnormal state mentioned, whatever may be the cause of it.

**Soap and Water.**—For a healthy skin there is nothing more wholesome and cleansing than soap and water. Rain or soft water is better for washing than hard water. It more effectually removes dirt and excretions, and it saves soap. Most hard waters can be made less hard by boiling or by adding a little soda bicarb. People who have naturally dry or delicate skins should be especially careful, both as to using soft water and soap of a pure character. The transparent soap is made by dissolving it in spirit, which precipitates any

excess of alkali, which might be a cause of irritation, and the superfatting process is meant to effect the same purpose. The purest natural soap is the Castile soap, the *sapo durus* of the P.B. It is made with olive oil instead of the animal fats which are the basis of ordinary soap. Many skin specialists insist strongly on the avoidance of all soap whatever in the case of disease of the skin. They recommend a thin gruel of oatmeal or starch for cleansing purposes, and they also forbid the presence of flannel next the affected part of the skin, and recommend that it should be replaced by, or lined with, linen or cotton.

**Cosmetics.**—From remote times there has been a demand, chiefly among the fair sex, for preparations 'to improve and beautify the complexion,' and the supply has been quite equal to the demand. There is good reason to suppose that many of these articles are of a simple and innocuous nature; but some of them contain ingredients which are far too dangerous for indiscriminate use. It will be in the recollection of many how one of them containing a dangerous proportion of bichlor. hydrarg. came to an untimely end a few years ago by a prosecution and conviction under the Pharmacy Act. The following will be found a useful 'face lotion' to obviate the injurious effects of sunburning and exposure :—

Zinci ox.	.	.	.	.	.	.	℥ij.
Glycerini	.	.	.	.	.	.	℥iij.
Aq. coloniensis	.	.	.	.	.	.	℥iv.
Liq. plumbi diacet.	.	.	.	.	.	.	℥ss.
Aquæ rosæ ad	.	.	.	.	.	.	℥vj.
Misce.							

Shake, and dab on the parts night and morning.

**Lait Virginal** is a celebrated cosmetic, which is made by pouring gradually an alcoholic tincture of benzoin into ordinary water until a beautiful perfectly white liquid is formed; about ℥j. to Oj. will be required. It is supposed to preserve the freshness of the skin, but in reality it merely, on evaporation, leaves a resinous stratum.

**Exercise.**—For cosmetic purposes exercise must be sufficiently brisk to allow of free perspiration. The skin all over while moist should then be rubbed dry with a cloth. This is nature's cosmetic—a wiping-off of dirt and débris when it has been dissolved or softened by the perspiration itself.

## SMALLPOX.

An attack of smallpox comes on abruptly, with high fever, severe pain in the back, headache, and vomiting. The intensity of these symptoms is a gauge of the severity of the impending attack. In a mild case the eruption spots are distinct. In a severe form they are confluent, running into one another to form one mass of conglomerate eruption.

### TREATMENT.

A smallpox patient should be kept in bed in a well-ventilated and darkened room or ward. The more air he has the better will he progress. The room and everything connected with the patient should be freely plied with disinfectants, partly to keep down the sickening odour, chiefly to destroy contagion. Occasional change of posture tends to prevent bedsores. When the eruption begins to itch, the hands should be muffled or tied, especially during sleep. Scratching is the main cause of excessive pitting. Clothing and contaminated linen should either be burnt or thoroughly disinfected by boiling in some liquid antiseptic.

**Diet.**—The diet should be light, suitable to a fever patient—supporting, because the powers of life are weakened.

**Antiseptic Treatment.**—This being an acute microbic disease, the antiseptic treatment, both internally and externally, should be resorted to freely from the first to mitigate the severity of the symptoms, and to disinfect the human body when it most wants disinfecting. The two remedies which hold out the most hope of averting disfigurement are sulphur and mercury.

**Sulphur.**—It is related of Dr. Jenner who introduced

vaccination that he once went to vaccinate thirty soldiers. None of them 'took.' It was subsequently discovered that they were taking sulphur to cure them of the itch, and this was the reason why the vaccine was abortive. To have decided effect in smallpox, sulphur should be given in doses of gr. iij. hourly in syr. 'aurant., and continued until the dangerous period has passed. The face also should be freely dusted with flowers of sulphur, to secure a local effect.

**Mercury.**—The solution of the perchloride of mercury in iodide of potassium is probably the best form in which to administer this powerful germicide, but other forms of mercury would have the same effect. This remedy would necessarily require more careful watching than sulphur, owing to its being an active poison to the economy, while sulphur is a disinfectant natural to the body and always in it, except when fevers use it all up. The following would be a good formula to use :—

Liq. hydrarg. perchlor.	. . .	ʒiv.
Potass. iodidi . . .	. . .	gr. xl.
Aquæ ad . . .	. . .	ʒviij.
ʒj. every two hours.		

At the same time, ung. hydrarg., ung. calomel. (ʒj. to ʒj.), or calomel as a dusting powder can be applied locally.

**Remedies to Prevent Pitting.**—On the third or fourth day of the fever the smallpox eruption usually appears. It is in the form of small, hard pimples, feeling like shot under the skin. These gradually increase in size. At first they are watery (vesicles). Then they become filled with matter (pustules). Lastly they break down and become crusts, and the scars that they leave behind are called pits. To avoid pitting means to prevent the pustules from breaking, and many means of effecting this have been suggested. Keeping the patient in a darkened room or with a mask on is a great help. Vesicles can be punctured with a needle dipped in solution of nitrate of silver gr. xx. to ʒj. Collodion, Carron oil, a mixture of zinc oxide and cream, or ung. zinci oxidi, by allaying itching and protecting the parts, would tend to prevent



scratching and afford protection from the atmosphere. Such remedies can be used in conjunction with antiseptic treatment.

**Quinine.**—An excellent remedy to restore strength when the eruption is subsiding is tinct. cinchonæ ʒj. t.d.s. in water, or

Quininæ sulphatis	.	.	.	.	gr. j.
Ac. hydrobromic. dil.	.	.	.	.	℥xxx.
Tinct. aurant.	.	.	.	.	℥x.
Aquæ	.	.	.	.	ʒj.
T.d.s.					

## SORE THROAT.

In the great majority of cases, sore throat is merely one of the early symptoms of a common cold. The fauces become swollen and reddened, and there is dryness and pain in the act of swallowing. It is a very simple ailment, and amenable to quite simple treatment.

Rarer and more serious forms of sore throat are when the parts either become ulcerated, or when they take on somewhat of a diphtheritic aspect, having the white appearance characteristic of that affection, without, however, its constitutional symptoms being present.

Further, it must never be lost sight of that sore throat is one of the symptoms of incipient scarlatina and diphtheria—two very grave diseases which may always be suspected, and which will be indicated by other constitutional symptoms.

### TREATMENT.

When sore throat is one of the symptoms of a feverish cold, internal treatment by means of diaphoretics is necessary. Either the acetate or the citrate of ammonia will be suitable :—

Tinct. aconiti	.	.	.	.	℥xij.
Liq. ammon. acet.	.	.	.	.	ʒiss.
Aq. chloroformi ad	.	.	.	.	ʒvj.

A tablespoonful every hour or two.

Local treatment, especially in the initial stage, is best

effected by means of salines, such as chlorate of potash, borax, or soda bicarb. The compressed tablet of the first of these is a convenient and very effectual means of administering it. One of them should be kept constantly in the mouth and allowed to dissolve, which it does very slowly. These salines may also be exhibited in the form of gargle, ʒj. of either of them being dissolved in ʒvj. of water, and a little glycerine added. An alternative mode of treatment is by astringents. Of these none is more useful than alum, and it may be used thus :—

Aluminis	.	.	.	.	.	.	ʒj.
Glycerini	.	.	.	.	.	.	ʒiv.
Inf. rosæ acid. ad	.	.	.	.	.	.	ʒvj.
Ft. gargarisma. Sæpe utendum.							

Tannin also will be found useful, either as gargle, 6 or 8 grs. to ʒj., or as glycerine of tannin applied with a large camel-hair pencil. Tincture of catechu may be painted on in the same way. Dilute sulphuric acid also makes a good astringent gargle, ʒj. in ʒiv. water, and many other astringents will suggest themselves. Capsicum, which used to be a popular remedy, both as lozenge and gargle, cannot be recommended, unless perhaps in very chronic cases, where stimulation is called for.

Such remedies as iodine, menthol, eucalyptus, carbolic acid, will be found useful in advanced stages of the complaint. The following is a favourite form for employing the first of them :—

Iodi	.	.	.	.	.	.	gr. vj.
Potass. ioidid.	.	.	.	.	.	.	gr. xx.
Ol. menth. pip.	.	.	.	.	.	.	ʒvj.
Glycerini ad	.	.	.	.	.	.	ʒj.

Shake and apply with brush night and morning.

Menthol can be used by means of a spray or atomiser, if dissolved in paroline, 15 or 20 per cent. Eucalyptus oil and carbolic acid are best exhibited along with steam by means of an inhaler, a few drops of either being added to the boiling water.



## THRUSH.

This is a fungus growth which takes up its quarters in the mouth of a new-born infant. Baby's mouth is perhaps the most favourable site that a fungus could select to grow upon and flourish. Breathing supplies it with a current of air, and the temperature is warm and equable.

Milk alone is the child's proper food, and it should not receive anything else until the saliva begins to flow, as the *oïdium albicans*—the 'thrush'—grows readily on any starchy or saccharine matter which adheres to the child's mucous surfaces.

If the mould once takes hold, the particles of fungus are carried through the digestive organs, producing eruptions and interfering with digestion.

## TREATMENT.

**Diet.**—Mothers and nurses should be urgently warned not to give sugar, butter, gruel, &c., to new-born babies. A child can go for three days without food until it obtains its natural milk, and it does not want anything till then. A child suffering from thrush must take the breast through a nipple shield, otherwise the nipples will become irritated. If brought up by hand peptonised milk should be ordered, and a few drops of brandy given with it will help its assimilation.

**Glycerinum Boracis** is probably the best remedy for thrush. It is preferable to use glycerine, but the borax may also be used mixed either with honey or sugar, a little being gently applied with the finger to the affected surface.

**Sulphite of Sodium.**—A 1-to-8 solution applied early will arrest the growth before it has done much harm.

**Change of Air** should be tried when the complaint shows signs of ameliorating. It is often magical in its effect.

## TOE NAIL (INGROWING).

Those who squeeze their feet into tight boots suffer untold miseries in consequence : ingrowing toe-nail is one of them. Pressure from without forces the nail into the flesh. Neglecting to pare the nails timeously is also a frequent cause of this ailment. It is an exquisitely painful complaint, but is easily cured.

### TREATMENT.

**Boots or Shoes** should be made from lasts moulded from the feet, and should fit well and comfortably, being neither too tight nor too large.

**Grooving Nail.**—By means of a small file or a sharp pen-knife a longitudinal groove or furrow should be made up the centre of the ingrowing nail. This practically divides the nail into two portions and at once takes the pressure off the ingrowing part. The relief is immediate and lasting. Another plan is to scrape the upper surface of the nail for a little way in from the front, so as to make it *thin* and incapable of entering the flesh. Evulsion, or forcible removal of the whole nail, is seldom needed.

**Cocaine.**—A strong solution, 10 per cent. or more of the hydrochlorate, may be used to relieve extreme pain.

## TONGUE (FEATURES OF).

The tongue has always a tale to tell ; that is why a physician looks at it. The appearance of the surface demonstrates the inner workings of the organism. A clean tongue is a usual accompaniment of health, but a coated tongue is not necessarily a sign of disease. Some people with irritable systems and atonic dyspepsia have unusually clean tongues. They are difficult cases to treat satisfactorily. A coated tongue may arise from local causes, such as bad teeth, sleeping with the mouth open, excessive smoking, but the more usual cause, in the absence of a fever, is deranged stomach. Fur on a tongue



is food 'débris mixed with epithelial scales and germs, and to remove it effectually, attention must be directed to the stomach.

## TOOTHACHE.

One of the penalties we have to pay—and it is not a light one—for our advancing civilisation is a great deterioration in our dental apparatus, it being an admitted fact, howsoever we may account for it, that a perfect set of 'ivories' is as rare amongst ourselves as it is almost universal amongst savage races. Fortunately the resources of civilisation are available to meet the evil which she herself has brought about, for modern dentistry can do much more in the way of preserving and replacing these invaluable organs than could have been dreamed of long ago.

Toothache in all its agonising phases is, in the great majority of cases, brought on by decay of the external hard parts of the teeth and the exposure of the sensitive inner pulp; then irritation is set up by hot or cold liquids, pungent or sweet foods, or by the impact of any hard substance in the process of mastication. In the early stage of decay the pain is intermittent, and sometimes occurs in very severe paroxysms. As the decay proceeds and the pulp becomes more and more affected, and, at a further stage, when the inflammation extends from the tooth to the tissues inside the socket (periodontitis), the pain becomes continuous and dull, and is much increased on tapping the tooth, which is loosened and slightly raised out of its socket, so as to feel 'longer' than its neighbours.

Gumboil is caused by inflammation at the root of the fangs of the teeth, when the pus formed can find exit only through the gums.

### TREATMENT.

**Preventive.**—The toothbrush should be used night and morning by everyone, both young and old. It prevents the permanent lodgment of particles of food, and their subsequent decomposition, which is perhaps the most frequent cause of

caries. A simple tooth-powder should be used. The precipitated carbonate of lime and the ponderous carbonate of magnesia are both typical tooth-powders, and a little orris or otto of rose, or other perfume, may be added to render them more agreeable. Those who have bad teeth or spongy gums should also use twice daily an astringent tincture composed of the tinctures of myrrh, cinchona, and camphor, with the addition of a little pellitory or 1 per cent. of carbolic acid. A teaspoonful of this in a wineglassful of tepid water should be used as a mouth wash, or a little of the tincture may be rubbed along the gums with the point of the finger.

All acids, when used medicinally, should be taken through a tube, to prevent them touching the teeth. Without this precaution their use is a very frequent cause of mischief to the teeth.

**Extraction.**—In former times this was very generally resorted to, but more recently a conservative principle has come into vogue, and extraction is regarded as the exception, the rule being to preserve the tooth as long as there is a hope of its being able to perform its natural function. This can be done by ‘stopping’ the tooth—an art which has attained great perfection, but which requires the exercise of the highest skill and care on the part of the dental expert.

**Carbolic Acid.**—In toothache of the early stage of decay this is perhaps the best application to relieve the pain. It should not be used in the pure form, on account of the risk of corroding the gum or cheek, but it should be diluted with an equal volume of rectified spirit, and applied on cotton-wool or with a pencil—or a convenient way is to mix it with half as much collodion. Thus combined it forms a jelly, a little bit of which on cotton-wool should be placed in the decayed tooth. The cavity should be carefully dried out with absorbent cotton before this and all other applications.

**Chloroform** is also a favourite application. Many dentists prefer it when saturated with camphor; and another way of using it is to make a saturated solution of mastic in it. Applied thus on cotton-wool it soon forms a ‘stopping’

which excludes external influences for a longer or shorter time.

**Oil of Cloves, Creosote,** and many similar remedies are also constantly in use. A good 'Toothache Essence' is made by macerating 1 oz. each of opium, pellitory root, colchicum seeds, and camphor, and  $\frac{1}{4}$  oz. tobacco leaf in 12 oz. rectified spirit for seven days, and straining.

**Tincture of Iodine and Aconite,** in equal parts, will be found the best remedy in periodontitis, when the tooth is loose and painful to the touch. The gum should be carefully dried, and then pencilled with it.

**Aperients.**—An old-fashioned remedy for simple toothache—and often a very effectual one—is a strong dose of purgative medicine—*e.g.* mist. sennæ co.  $\mathfrak{z}$ ij.

**External Remedies.**—Chloral and camphor pencilled on the cheek is useful when the pain takes the form of facial neuralgia. Laudanum sprinkled over a bit of flannel, or a mixture of whisky and pepper, or similar stimulants, applied in the same way to the cheek, often relieves the pain of toothache.

The best treatment of gumboils is hot water or hot fomentations of chamomile and poppy, applied both internally and externally, and the application of a roasted fig to the gum, with a view to the maturation of the abscess.

## TYPHOID FEVER.

The specific typhoid microbe is introduced to the stomach through the medium of food, of milk, and water. It singles out the glands of the bowel (Peyer's patches they are called) for its destructive habitat. These glands become inflamed and ulcerated. It takes three weeks usually for them to heal up, and so the disease continues until they have cicatrised. During this time the characteristic symptoms are diarrhœa—the evacuations resembling pea soup, and often containing blood—and a sparse rose-coloured eruption over the abdomen appearing after the first week. The amount of fever, eruption,

pain, or delirium depends on the severity of the ulcerative process. By a study of the symptoms the degree of ulceration can be gauged.

Some die exhausted long before the turning-point has come, others bleed to death from the eating away of blood-vessels, or they succumb to peritonitis the result of perforation of the intestine.

Happily, the knowledge of the causation of typhoid fever is now so accurate that the extension of an epidemic is at once prevented. The medical officer of health, on a case being notified to him, forthwith institutes inquiries as to the water and milk supply of the neighbourhood, and the threatened epidemic is nipped in the bud.

#### TREATMENT.

**Hygiene.**—The patient should lie in a well-ventilated room, from which all superfluous furniture or drapings have been removed. In winter a fire will help ventilation. Great cleanliness must be observed, and all discharges which contain the contagion must at once be adequately disinfected. In severe cases with much delirium, two trained nurses must be procured, one for the night, the other for the daytime. The friends should notify the disease to the proper authorities, and take steps to ascertain the purity of their milk and water supply. It is a wise precautionary measure to boil both the milk and water, to destroy any germs they may possibly contain. The patient should if possible lie on a water-bed, which reduces the chances of bedsores when he is at the most critical period. Also, if the fever is abnormally high, it is an excellent and safe procedure to reduce the temperature by placing iced water in the bed. This is far preferable to the ordinary cold bath or cold sponging.

**Diet** must consist entirely of milk, with or without lime, soda or seltzer water, and not more than three pints daily should be given. A little beef tea or meat juice may be permitted occasionally. All food must be administered at



regular intervals and in measured quantity. No other food whatever must the patient have unless the doctor advises it.

**Alcohol.**—As a rule stimulants are prejudicial during the course of the disease, but, when convalescence has started, port wine or champagne jelly may be used to build up the strength by improving digestion.

**Glycerine** for sweetening purposes is useful as an aliment and as a mild antiseptic.

**Opiates** are called for to control severe diarrhœa or pain and any severe complications. By its constipating effects in arresting peristaltic movements opium at times is invaluable.

**Expectancy.**—It is the usual practice to subordinate everything else to scientific nursing and simple dieting such as suggested. This, it is thought, affords the patient the best possible chance of getting well. The physician merely, as it were, guides Nature while she makes her curative efforts to heal the ulcers.

**Antipyrin** gr. x. or more is employed to reduce fever if abnormally high.

**Poultices** to the right side of the abdomen, or, better still, hot poppy fomentations, are valuable for acute pain.

**Ergotin** hypodermically, gr. j. to gr. iij., for hæmorrhage.

**Intestinal Antiseptics.**—The remedies which hold out the greatest prospect of prevention or cure are those which act as antiseptics to the intestine, and thereby heal the ulcerated patches. Unfortunately the majority of these, such as arsenic, calomel, iodoform, salol, or salicylic acid, are so irritating that their use is attended with much danger. The only antiseptics which hold out any possible hope of cure are eucalyptus oil  $\mathfrak{m}\mathfrak{v}$ ., in emulsion, quinine sulphate gr. iij., every four hours, and sulphurous acid.

**Sulphurous Acid.**—This antiseptic liquid has been largely used and glowingly spoken of. It should be given as follows :—

Acid. sulphuros.	.	.	.	.	.	3ij.
Syr. aurant.	.	.	.	.	.	3ss.
Aquæ ad	.	.	.	.	.	3viiij.
3j. every four hours.						



A proportionately smaller dose for a child. This mixture should be continued until the patient complains of a lucifer-match taste, which is an indication of cure.

## ULCERS.

Whenever a portion of the living animal-substance is subjected to a process of disintegration or molecular death it is said to be ulcerating. An ulcer may be an outlet by which the system rids itself of poisonous retained products. Those who are debilitated by privation or intemperance, and those who are tainted with syphilis or scrofula, are most liable to ulceration. Whenever the circulation is languid or deficient, the parts that suffer most are the extremities. Ulcers of the leg are very common. Tall, stout persons are the greatest sufferers. Ulceration is nature's way of curing certain diseases, or of removing diseased or dead portions of flesh or bone.

When a part is injured physically and the wounds are external, ulceration cures them. If a structure is naturally so diseased as to be partly dead, ulceration and disintegration of the weak part occur. This happens to the apices of the lungs in cases of consumption.

An ulcer is always dangerous, and should, whenever possible, be healed. A gradual process is the path of safety ; too rapid healing is unsafe.

## TREATMENT.

**Rest.**—In leg-ulcers absolute rest in bed or on a sofa may be the only way of curing them. Standing or sitting with the legs down should be avoided.

**Bandages.**—Where there is much swelling of the surrounding parts, the support of a rubber bandage will do wonders. If but little discharge, and the ulcer is small, an elastic stocking is cooler and more ventilated. Strapping, by means of strips of adhesive plaster, is a favourite hospital treatment for bad legs.

**Ung. Zinci** applied on lint is the best treatment for superficial inflamed sores. It may be mixed with an equal part of ung. hydrarg. ammon. if stimulation is needed.

**Ung. Resinæ**, alone or combined with an equal part of ceratum calaminare, is a good drawing stimulating ointment for indolent ulcers.

**Ung. Hydrarg. Ox. Rubr.** ʒss. to ʒj. adipis benzoati is the most suitable application for chronic deep-seated ulcers of the leg.

**Iodoform** has extraordinary efficacy in healing ulcers if they have not advanced beyond the healing-point. It may be dusted on or applied as an ointment, gr. x. with ol. eucalypt. ʒv. to ʒj. vaseline. If the smell is much objected to, iodol or aristol can be substituted, but they are not so certain in their action.

**Carron Oil**, or equal parts of aqua calcis and ol. olivæ, is useful in recent acute ulcerations with much pain and inflammation.

**Pepsin**, dusted on or used as an ointment, has been suggested for unhealthy sloughing wounds to digest away the unclean portions. It does this effectually, but the application is rather painful.

**Hazeline**, on lint or wool, should be employed for blood-oozing or for bleeding from an injured or varicose ulcer.

**Opium**, in the form of gr. ss. to gr. j. pills, acts like a charm on the ulcers of aged people, whose lives are in addition frequently prolonged by its stimulant-sedative effect on the system. In a less degree alcoholic beverages have a similar effect.

**Potassium Chlorate**, given internally, gr. xx. t.d., and applied externally as a saturated solution, has been well spoken of in recent cases.

**Potassium Iodide**, gr. v. or more, for syphilitic or scrofulous ulcers, is unexcelled. The syr. ferri ioidid. ʒxx. to ʒxxx. is a better preparation for the unhealthy ulcerations of childhood.

**Lotions.**—Some ulcers require watery lotions for their

cure. Zinc chloride gr. xx. to Oj. ; zinc sulphocarbolate gr. ij. to ℥j. ; spt. vin. rect. used pure ; alum ℥j. to ℥iv. ; potass. permang. gr. j. to ℥j. ; lotio rubra—*i.e.* zinc sulphate gr. ij., tinct. lavand. co. ℥xij., aqua ℥j. ; acid. boric., saturated solution ; a calamine and lead lotion ; lotio nigra. All such lotions have their uses, and will suit the peculiarities of a variety of patients.

In all cases of 'ulcer,' in addition to local remedies, constitutional treatment, varying according to the nature of the case, should be attended to.

## URINE (INCONTINENCE OF).

The urine is an excretion derived from the blood during its passage through the kidneys. It is composed of water, holding in solution the soluble refuse of the tissues. A healthy person passes water about four times a day, but if the urine is perverted or irritating, it may be passed much more frequently.

An inability to retain the water at night during sleep is a common symptom among children, of those with unhealthy constitutions, irritable brains, or of the carelessly brought up. A child should be taught early the necessity of regular habits. Systematic emptying of the bladder is almost as essential as daily action of the bowels.

Incontinence may be caused by the irritation of worms ; by errors of diet, such as too rich or too stimulating foods ; or it may originate from mere indolence and bad habit.

This same unpleasant symptom is noticed in diseases of the brain or spine, or as a result of the mechanical influence of extreme coughing.

### TREATMENT.

**Hygiene.**—Bedwetters should avoid mental excitement. They should be allowed open-air recreation, and not do any home lessons, and they should be made to sleep on a hard mattress without many bedclothes. The child should be made to empty the bladder before retiring, and in order to avoid heavy sleep should be awakened in about two hours. To

avoid lying on the back a cotton-reel may be adjusted over the lower part of the spine. Warm baths and cold sponging of the back are distinctly useful in cases of nervous origin, and may be combined if necessary with galvanism.

**Circumcision.**—If due to physical causes or defects this operation may be confidently recommended.

**Diet** should be rigorously plain but wholesome—a very little meat and no rich dainties or sweetstuffs. Salted or acid foods are to be avoided. Alcohol, or tea and coffee are bad for children. No drinks of any kind should be taken for at least an hour before retiring to bed.

**A Blister** to the nape of the neck can be safely suggested in cases of neurotic character.

**Belladonna.**—℥v. to ℥x. of the tincture twice or three times a day, or a belladonna suppository, is a most reliable remedy. Children tolerate this drug well. The addition of potassium bromide gr. x. to each dose increases its efficacy. Iron also may be given along with it with great advantage in the case of delicate children. The following can be recommended :—

Tinct. belladonnæ . . . .	ʒij.
Ferri et ammon. cit. . . .	ʒij.
Syr. aurant. . . . .	ʒiv.
Aquæ ad . . . . .	ʒiiij.
Misc. . . . .	ʒj. t.i.d.s.

**Strychnine** to strengthen the action of the spinal centres ; its use is indicated in cases where the nerves require to be toned or braced up.

Tinct. nuc. vom. . . . .	℥j. to v.
Syr. aurant. . . . .	ʒj.
Acid. phosphoric. dil. . . .	℥iiij. to viij.

is a good combination. In adults full doses of the same remedies are largely prescribed in forms of paralysis affecting the bladder.

**Tonics**, especially syr. ferri iodidi ℥xx. to ℥xxx. are useful to improve general health. Ol. morrhuæ may be given with it for delicate strumous children.

## URTICARIA.

Some persons have an irritable skin, and a slight cause will bring on nettlerash. Urticaria is a transient skin eruption marked by the presence of wheals similar to those caused by nettle stings. Scratching, rubbing, or bathing will bring out this rash. Nervous worry, uterine irritation, a perverted liver, and other malign influences are exciting causes. The chronic form of nettlerash is very obstinate. Digestive derangement is the most frequent factor in producing the eruption. There are certain foods and drugs which act as veritable poisons to the skin, through the intermedium of a poisoned blood and a system full of acid.

### TREATMENT.

**Hygiene.**—Great cleanliness must be observed. It is best to wash morning and evening, as the use of water removes wheals. Warm baths greatly soothe the skin. Alkaline or starch baths are used in obstinate cases, or a course of Turkish baths may be suggested in cases having a gouty or rheumatic origin.

**Diet.**—All forms of shellfish are to be forbidden. The eating of such food is a frequent cause of nettlerash. Vegetable acids, such as vinegar, pickles, sauces, or lemon juice, are highly prejudicial. A piece of bacon fat rubbed on the part is said to remove wheals. An exclusive milk diet may be the only means of curing an inveterate case.

**Acids Internally.**—Dilute nitromuriatic acid  $\mathfrak{mxx}$ . t.d.s. by eliminating uric acid, a cause of urticaria, is often beneficial. In this it differs markedly from its vegetable prototypes. It may be given in combination with tr. nuc. vom. or quinine and iron.

**Acids Externally.**—Strange to say, vinegar sponged on the parts greatly relieves the eruptive symptoms, or the parts may be rubbed with the freshly cut end of a lemon. Carbolic lotion  $\mathfrak{i}$  to  $40$ , chloral hydrate  $\mathfrak{Hj}$ , to  $\mathfrak{zj}$ , lead acetate and



calamine lotion ʒj. of each to ʒiv., or glycerine lotion 1 to 7, are useful applications to allay the itching and tingling.

**Alkalies.**—What are called blood alkalies are curative, such as the bicarbonate or citrate of potash gr. xx. or citrate of magnesia ʒj. The latter may be selected where a mild laxative is needed, or seidlitz powders may be suggested.

**Aperients**, such as podophyllin, rhubarb, cascara, by their tonic laxative properties, remove irritants and improve digestion.

**Potassium Bromide** is an excellent drug in urticaria of nervous origin, accompanied by headache or loss of sleep.

**Arsenic**, in inveterate cases, in the form of liq. arsenic. ℥iij. to ℥v. or liq. Donovan ℥x. to ℥xx. These are efficient, if powerful, remedies where alterative action is necessary. Tinct. iodi ℥v. or potassium iodide gr. v., combined with potassium citrate gr. xx., are even better.

## VACCINATION.

### MANAGEMENT.

**Arm Shield.**—The vaccination pocks are generally at their height on or about the eighth day. The child is apt to be a little fretful for a day or so. A shield, by protecting the parts from the friction of the clothing, helps to make baby more contented. Parents should be strongly advised not to use an old shield, especially a borrowed one.

**Ung. Zinci.**—If there be more inflammation than ordinary, a little zinc ointment applied on lint and renewed frequently enough to prevent the lint sticking in will generally suffice to abate it.

## VEINS (VARICOSE).

Every vein is possessed of valves, which enable the current to flow freely in one direction only. When a vein is dilated its valves cease to be efficient—it has become varicose. The vessels are seen under the skin; they are dilated, tortuous,

knotted, and the limb is discoloured and swollen. Varicose veins are almost exclusively confined to the superficial vessels of the lower limbs, or to the spermatic veins. The latter is called varicocele. Excessive standing, tight garters or stays, pregnancy, constipation, and disorders of the circulation are the most usual starting-points.

#### TREATMENT.

**Stocking.**—An elastic stocking affords that support to the vein which the valves can no longer give. The elastic pressure prevents them from getting worse. A stocking should fit well and comfortably. Prolonged exercise or standing should be abstained from. A varicocele requires the support of a suspender.

**Laxatives** should be given to obviate constipation, which always aggravates the complaint. Natural aperient waters and cascara sagrada are best.

**Operation.**—If the presence of varicocele is a bar to a candidate's entry into the public services, or if a radical cure is wished, an operation must be resorted to.

Serious and even dangerous consequences may result from the bursting of the affected veins. Should the bleeding be excessive, the limb should be raised as much as possible, and the bleeding treated as under 'Hæmorrhage.' A peculiarly obstinate ulceration also is often the result of this rupture, and it must be treated accordingly.

## VENEREAL DISEASES.

### GONORRHŒA AND GLEET.

Gonorrhœa is the most prevalent of all venereal complaints. A simple case may get well in a few weeks if cared for; but when neglected or in a severe form, complications often arise. Gleet (or the chronic form of the malady), orchitis (or swollen testicle), stricture (a narrowing or occlusion of the urinary passage), inflammation of the bladder, blood poisoning, are the chief after-effects of gonorrhœa in males. In women the perniciousness of the virus is equally marked.

It inflames and cripples the sexual organs, and is an active cause of sterility in both sexes.

The first symptoms are heat and scalding in making water, and the discharge of a thickish yellow matter. In the course of time, and under appropriate treatment, this may pass away, or it may pass into the form of gleet, in which the inflammatory symptoms are abated, and the discharge assumes a thin and glairy consistence. This phase of the complaint often continues for a very long time, resisting almost every form of treatment, and may suddenly pass away without any apparent cause. A very painful symptom in gonorrhœa is often caused by an erection of the penis during sleep. This is called a chordee, and can be averted by a full dose of liq. morph. hydrochlor. at bedtime.

#### TREATMENT.

**Rest.**—Every sufferer from acute gonorrhœa should keep as quiet as possible and avoid exercise until the symptoms have subsided. In the military hospitals it is customary to keep patients in bed. A suspensory bandage should be worn, and the greatest attention paid to cleanliness locally.

**Diet.**—The diet should be extremely bland, with little meat and plenty of barley water and milk and soda water to drink. Alcohol in every form should be rigorously avoided.

**Copaiba, Cubebs, and Sandal** are the specific remedies for gonorrhœa, and may be given both in the acute and chronic stage, and they may be exhibited either singly or combined with one another. The capsule is a desirable mode of using copaiba, or a paste composed of it along with cubebs can be taken wrapped in wafer paper. The sandal oil can be dissolved in spirit and taken plain, followed by a glass of water.

P. cubebæ . . . . .	ʒij.
Copaibæ bals. . . . .	ʒj.
Ol. cubebæ . . . . .	℥xv.
P. cin. co. . . . .	ʒj.
Camphoræ . . . . .	ʒss.
Ol. cassiæ . . . . .	℥x.

Misce.

The bulk of a small nut wrapped in wafer paper t.d.s.

Ol. santali flav. . . . .	℥j.
Ol. pimentæ . . . . .	℥j.
Ol. cassiæ . . . . .	℥ss.
Sp. vini rect. ad . . . . .	℥iv.
Miscc. ℥j. t.d.s.	

**Saline Aperients.**—In the early stages where there is heat and swelling it is indispensable to employ cooling saline aperients, and these must be used at the same time as the specific remedies. Some medical men restrict their treatment of the earliest stage to these saline remedies alone.

Potassii acet. . . . .	℥vj.
Potass. bicarb. . . . .	℥iv.
Aquæ ad . . . . .	℥viiij.
Misce. ℥ss. ex cy. aq. larg. quater die.	
Sodii tartarat. . . . .	℥ij.
Sodii bicarb. . . . .	℥ij.
M. Ft. pulv. Omni mane sd. ex ℥vj. aq.	

**Liq. Buchu, Cubebæ, et Santal. Flav.** is an excellent remedy in chronic forms which require stimulation, in doses of ℥j. t.d.s.

**Ext. Ergot. Liquid.** ℥x. to ℥xxx., combined with zinc. oxid. gr. ij., will occasionally arrest obstinate gleet. Tinct. ferri perchlor. in doses of ℥xxx. is a similar remedy.

**Injections.**—These should not be used in the early stage, as they may be productive of ill consequences; but when that has passed—indicated by the abatement of inflammatory symptoms and a change in the appearance of the discharge—they will be of great service. ℥ij. is a sufficient quantity to use, after the patient has passed water—never before doing so—three times daily. The following are examples of suitable injections:—

**Zinc Chloride** gr. j. to water ℥j.

**Zinc. Sulph. or Sulpho-carbolate** gr. ij. to ℥j.

**Mercury Perchloride** gr. j. to water ℥vj.

**Cocaine.**—The addition of a few drops of 2 per cent. solution is useful to allay extreme pain after passing water,

**Medicated Bougies**, made with cocoa-butter or gelatine, and containing iodoform and eucalyptus oil or other drugs, will cure some cases of gleet when injections or internal remedies entirely fail. The passage of an elastic catheter will do the same.

#### SYPHILIS.

Only doctors can realise the widespread havoc caused by syphilis. No blood-poison disease is so universal, so destructive, and so far-reaching in its effects. Nature makes scarcely any attempt to rid the system of it. She is either unable or unwilling to cope with it.

Syphilis is the most prolonged of all contagious diseases. It lingers in the system, and insidiously creeps into every nook and crevice of the body. It is, besides, hereditary, descending to the third and fourth generation.

Syphilis first shows itself about three weeks after contagion, as a peculiar ulcer or sore, termed a hard chancre. This is the first indication of its presence.

In one to three months more, the secondary symptoms appear. Enlarged glands, sore throat, varied skin eruptions, loss of hair, and in severe cases disease and destruction of the nose and throat structures.

Some years after this, slight causes will develop sequelæ or tertiary symptoms. The virus at this stage is not directly contagious except to the offspring, and its lesions may appear in any tissue or organ of the body.

#### TREATMENT.

**Diet.**—Much can be done to promote a cure by a purely hygienic and dietetic system. The sufferer must live the healthy outdoor life of an agricultural labourer, doing plenty of hard manual work, eating much the same sort of food, and strictly avoiding alcohol in every shape or form.

**Mercury.**—There can be no reasonable doubt as to the efficacy of mercury in syphilis, but its abuse in former days has given it a bad name. Mercury should be given in small



doses, such as hydrarg. c. cretâ gr. j. t.d.s., or hydrarg. iodid. virid. gr.  $\frac{1}{6}$  to gr. j. t.d.s., continued for a length of time—for months at least. Any sign of salivation or tenderness in masticating food is an indication to diminish the dose. In this way, with due care exercised, the curative effect of mercury is really astonishing. Abuse of mercury undoubtedly aggravates the symptoms, and induces another disease—namely, syphilitic mercurial poisoning.

**Potassium Iodide** is especially valuable in removing secondary and tertiary symptoms. It must be given in doses of gr. v. to gr. x., or even more, to secure its full effect, and even when taken in large doses it is generally well tolerated. It acts best combined with an alkali, especially spt. ammon. aromat. or ammonium carbonate. In the secondary stages mercury and iodide of potassium go well together, thus :—

Potass. iodidi . . . . .	ʒj.
Hydrarg. bichloridi . . . . .	gr. j.
Aquæ . . . . .	ʒviij.
ʒss. t.d.s.	

By combining pot. iod. with mercury the latter is retained in a soluble form, and is thus more completely eliminated from the system.

**Mercurial Applications.**—Black wash is very useful for all forms of eruption, especially those of hereditary form in children, or calomel dusted on may be used instead. Adhesive plaster containing mercury may also be applied in slight eruptions, as thus :—Calomel ʒiss., ol. ricini ʒiv., resin plaster ʒvj., mixed and spread on moleskin. The perchloride as a lotion is equally good :—

Hydrarg. perchlor. . . . .	gr. iv.
Acid. hydrochlor. dil. . . . .	ʒj.
Acid. hydrocyanic. . . . .	ʒj.
Glycerini . . . . .	ʒij.
Aquæ . . . . .	ʒviij.

Ft. lotio.

## VERTIGO (GIDDINESS).

Vertigo is the consciousness of a disordered equilibrium, and reeling is an instinctive effort to preserve the equilibrium.

The seat of the nerve of hearing, called the labyrinth, controls equilibration. Anæmia, gout, migraine, indigestion, abuse of certain drugs, such as quinine, salicin, or caffeine, affect the blood-pressure in the ears, and so produce vertigo. In the majority of cases, giddiness is a symptom dependent on nervous weakness or digestive disorders. Where it is severe and unaffected by ordinary treatment, the symptom points to serious structural disease of some sort, affecting the eyes, ears, or brain itself.

### TREATMENT.

A patient suffering from vertigo, or noises in the head, should be warned of the danger of excesses of any kind. He should, if possible, take a few days' rest; overwork is a common starting-point of this symptom. The abuse of alcohol, tobacco, and tea frequently causes vertigo. When excess of uric acid is affecting the blood-pressure within the head, attention should be directed to the gouty symptoms. When the stomach is disordered, treatment should be directed to removing the dyspeptic symptoms.

**Constipation** and sluggish liver are frequent causes of vertigo. In such cases a brisk purgative pill—pil. col. et hyos. gr. iv., podophyllin gr.  $\frac{1}{4}$ —every second or third night, or a saline aperient every morning, will relieve it.

**Nerve Tonics.**—Nervous weakness is also a frequent cause of vertigo, and nerve tonics will be found to be the best remedies. Iron, quinine, and strychnine combined will be indicated. The valerianates of zinc, iron, and quinine are also good remedies. Cod liver oil can be given to help the nerve tonics. Arsenic, in  $\text{m.j.}$  to  $\text{m.v.}$  doses of the liquor after food, is also an excellent remedy.

**Nerve Sedatives.**—In very severe cases it may be well to give sedatives as a preliminary measure before resorting to

nerve tonics. Tinct. gelsem., in doses of  $\mathfrak{m}\mathfrak{x}$ . or more t.d.s., is most effective in a great many cases. Dilute hydrobromic acid, in doses of  $\mathfrak{m}\mathfrak{x}$ . to  $\mathfrak{m}\mathfrak{xx}$ ., and ammonium bromide gr. xx. to gr. xxx., are also good sedative drugs, and may be well combined with tonics.

## VOMITING.

Mechanical pressure of the stomach brought to bear on it simultaneously by violent muscular contractions of the diaphragm and of the abdominal walls forcibly expels the gastric contents.

Some people are more sensitive in this respect than others. They have what is called a delicate stomach, and a bad smell, a disgusting sight, or an unpleasant taste will make them sick.

Improper food or too great a quantity, irritant substances or poisons, cause vomiting.

Violent cough entails considerable spasmodic contraction of the muscular parts used in the process of vomiting. Termination in that act is salutary, as the bronchial tubes are thereby cleared of mucus. For this purpose vin. ipecac. is given to children suffering from bronchitis.

Very acute pain of any kind, particularly that resulting from the passage of gall-stones or renal calculi, may put in motion the machinery of vomiting.

The various structures of the body have direct sympathies one with another. Irritation or morbid sensibility of one organ will largely influence the action of an entirely distinct portion of the economy. When the womb is inflamed or enlarging from natural causes during pregnancy, the uterine nerves are stretched and irritated, and the stomach ejects its contents in consequence.

Lastly, the severe shaking and rolling to which the brain, the eyes, and the sensitive ossicles of the sense of hearing are subjected from the unaccustomed movements of a carriage or of a vessel at sea, induces that highly unpleasant and persistent form of vomiting known as sea-sickness.

## TREATMENT.

**Warm-water Emetics.**—If vomiting arises from over-repletion or from indigestible food, it may safely be encouraged within reasonable limits by drinking warm water or tickling the throat until the peccant material has been expelled.

**Diet.**—Small pieces of ice placed on the tongue and sucked or swallowed allay the sickness of a heated system. The stomach will retain bland liquid nourishment, such as beef tea, Caffyn's liquor carnis, milk and soda water, jellies, barley water, arrowroot, or grapes, when it will reject any other diet. As a rule, food should be given in small quantities frequently and iced. Lime water is a useful addition to milk, especially in the dietary of sick children; but sodium bicarbonate or fluid magnesia is better if the child is constipated.

**Effervescent Mixture.**—The best all-round remedy for sickness is composed thus :—

Potass. bicarb.	. . . . .	ʒij.
Acid. hydrocy. dil.	. . . . .	℥xxx.
Aquæ ad	. . . . .	ʒviiij.

ʒj. to be taken with ʒss. of lemon juice every four hours.

Effervescent salines or effervescent caffeine salts are good in slight cases of nausea or bilious sickness. Carbonic acid gas, in the form of aërated water, has a wonderfully sedative effect on the irritated mucous membrane of the stomach.

**Mustard**, as a poultice or leaf to the pit of the stomach, relieves most forms of vomiting. If it fails, small blisters or galvanism will exert more powerful action.

**Calomel** gr.  $\frac{1}{12}$ , or hydrarg. c. cretâ gr.  $\frac{1}{6}$ , every four hours, is the treatment for vomiting accompanied by deranged bowels and deficient liver-action.

**Bismuth Preparations** are indicated when it is caused by gastric catarrh. A good formula is as follows :—

Bismuth. subnit.	. . . . .	ʒiss.
Syr. flor. aurant.	. . . . .	ʒiv.
Aquæ ad	. . . . .	ʒviiij.

ʒj. c. cibo.





**Quinine Sulphate**, gr. iij., with acid. hydrobromic. dil., has been known to arrest uterine sickness when everything else failed.

## WARTS.

Warts are small growths consisting of enlarged papillæ of the true skin. They mostly occur on the hands of children. If numerous they may come on the face by auto-infection, for they are often decidedly contagious.

It is a curious fact that if one wart be removed the rest will occasionally follow.

### TREATMENT.

**Magnesiae Carb.** ʒss. n.m.que for a fortnight is said to be effectual. The warts drop off. Magnes. sulph. gr. x. to gr. xx. may have the same effect.

**Corrosive Acids.**—*Nitric acid* applied on the end of a wooden match is the most powerful caustic ; care should be taken not to overdo it, as scars may be left. *Chromic acid*, three or four applications of the solution by means of wood or glass, will cause warts to disappear. *Acetic acid* (glacial) painted over the warts daily, destroys their vitality. *Salicylic acid*, in the form of collodion corn-paint, is also a sure remedy, and is to be used when the wart, or the skin immediately round it, is tender or sore, or when the excrescence is situated on a tender part, such as the nostril. *Nitrate of silver* should never be used.

When the wart is long and pendulous the proper mode of proceeding is to tie a silk thread tightly round the base of it. This prevents it receiving nourishment from the body and ensures its extinction.

## WHITLOW.

Some can wound or poison their flesh with more or less impunity. With others the veriest pin-scratch will cause the most virulent inflammation and blood-poisoning. Persons tainted with scrofula, or who suffer from constipation and

impure blood, are more prone to this than others. In such cases a slight injury of any kind to a finger or finger nail will start a painful inflammatory swelling called a whitlow. The pain is great, usually terminating in abscess, and if severe must be attended to at once, otherwise there is danger of its spreading up the hand, or causing necrosis of the finger bones.

#### TREATMENT.

The point of the finger should be well protected by wrapping it in cotton wool to prevent it coming into violent contact with any hard substance, which it is so apt to do, and which would increase the irritation, and render almost certain the loss of the nail, or even more serious consequences. It is well also to keep the arm in a sling.

**Hot Fomentations or Poultices** are usually resorted to to allay pain and inflammation, or to promote the formation and discharge of matter. The abscess should be freely laid open with the lancet, whenever it is ready for it.

**Splints.**—Where poisoning of the parts threatens to extend up the arm, absolute rest by means of a splint is called for, as well as prompt surgical treatment.

Pencilling all the point of the finger with strong tinct. iodi or argent. nit., if done at an early stage, will often arrest the further progress of a whitlow.

### WHOOPING-COUGH.

Whooping-cough is supposed to be due to the action of a specific microbe which takes up its habitat in the throat. The infective material is probably contained in the expectorated mucus. The complaint is highly contagious. The cough of whooping-cough is distinguished from that of other disorders by the peculiar 'whoop' which accompanies it, by its violent paroxysmal character, and by its coming on at regular intervals, and terminating in vomiting or expectoration. Children know when the cough is about to seize them, and they run to their natural protectors for help.

TREATMENT.

**Hygiene.**—Sufferers should be warmly clothed, and if weakly at the chest must be kept indoors during the acute stage. If strong, and the symptoms are subsiding, plenty of fresh air will be beneficial.

**Diet** should be light and nourishing. Care must be taken not to overload the stomach, for vomiting is a frequent symptom of this complaint. Milk and lime water, milk puddings, and beef tea are the most satisfactory articles of diet to give habitually. Brandy ℥j. given in sugared water is useful to allay the restlessness of an incessant cough. Cod liver oil and Kepler's solution, or similar preparations, are valuable foods to remove the debility of convalescence.

**Carbolic Acid.**—In former days parents frequently took their children to inhale the fumes of burning tar, or to breathe the air in the vicinity of gasworks. Now, by means of carbolic acid, it is the practice to fumigate the sick-room. A quantity of the pure acid is either sprinkled on the floor repeatedly, or a sufficiency is placed in a saucer over a night-light to be slowly volatilised. Cresolene, used with the lamp supplied for this purpose, has a specific action.

**Sulphur.**—Equally effective treatment consists in putting the child in a room that has been thoroughly disinfected with sulphur.

**Vin. Ipecac.**—A paroxysm of whooping-cough often ends in vomiting, and great relief is thus obtained. To promote this, ipecacuanha wine may be given in emetic doses, or an expectorant mixture may be made containing a few drops in each dose, combined with oxymel or syrup of squill.

**Embrocations.**—Roche's embrocation has a world-wide reputation in whooping-cough, and it is undoubtedly of great service. A somewhat similar liniment is made as follows :—

Ol. succini rect.	.	.	.	.	℥iv.
Ol. caryoph.	.	.	.	.	℥ij.
Ol. camphoræ ad	.	.	.	..	℥ij.

**Alum** is an invaluable remedy after the acute stage has

passed, especially if sickness is a troublesome symptom. It acts best combined with conium and belladonna thus :—

Pulv. alum.	.	.	.	.	.	gr. xxv.
Tr. bellad.	.	.	.	.	.	℥xxx.
Succ. conii	.	.	.	.	.	ʒj.
Syr. aurant. ad	.	.	.	.	.	ʒiss.
ʒj. urgent. tusse.						

Potassium bromide gr. iij. to gr. x. in some cases acts better than alum if restlessness or convulsions are threatening.

**Change of Air**, especially to the seaside, will act magically in completing a cure ; but if resorted to too early it may do harm. Seven weeks from the onset of the disease is the time usually allowed.

## WORMS (ROUND WORMS, THREAD-WORMS).

The presence of worms in the intestine may produce such distressing symptoms as to make life a burden, or they may give rise to very little inconvenience. A child with worms may suffer from great itching of the nose and anus, thirst, a capricious appetite, shortness of breath, emaciation, cough, stomach-pains, and even convulsions or epilepsy may ensue. But every one of these symptoms may be, and often is, absent. Worms are generally contracted by eating raw vegetables or drinking water contaminated with the ova, and all children alike, and even adults, are liable to them. The round worm (*Ascaris lumbricoides*) resembles a garden worm, but is whiter in appearance. A threadworm (*Oxyuris vermicularis*) is from  $\frac{1}{4}$  to 1 inch long, and looks like a piece of white cotton. The former dwell chiefly in the small intestine, where they live on the chyle. The latter take up their abode chiefly in the rectum and live on slime. The only proof of the presence of worms is the detection of the creatures or their ova in the dejecta passed.

## TREATMENT.

**Diet** should always be simple. Cakes, pastry, sweetstuffs, and any rich food must be avoided. Salt should be eaten with meals. Drinking-water should be boiled or carefully filtered. Fruit or vegetables should be dipped in strong salt and water. Raw carrots and raw uncooked vegetables are domestic remedies for worms. They pass through unchanged and sweep the worms onwards, but their use cannot be counselled.

**Hygiene.**—The general health of a child must be carefully looked after. Cold morning sponging, with vigorous rubbing afterwards, combined with plenty of open-air exercise, impart vigour and are direct aids to local treatment. A child's finger nails should be cut to prevent scratching.

**Injections.**—Intestinal worms flourish in slimy tenacious mucus. If this is brought into a healthy condition they take their departure forthwith. Common salt  $\zeta$ iv. to Oj. is a simple and good injection to use for this purpose. It must be given at bedtime, when the bowel is empty, and it should be copious. Strong infusion of quassia is even more effectual than salt. Quassia has a deadly poisonous effect on lowly organised parasites of any kind.

**Ointments** such as lard or oil, or better, ung. hydrarg. ammon. or some parasiticide salve, applied to the anus continuously, but especially at night, is most effective and simple. Light and air are necessary to the due propagation of thread-worms. It is said that the female discharges its eggs in the vicinity of the anus. Ointments destroy the larvæ, and in about eight days the child is free from its rest-disturbers.

**Lime Water** taken freely as a beverage, with or without milk, is the best medicinal treatment for the cure of thread-worms. It must be continued for several months. It clears the intestine of slime, in which they flourish.

**Santonine** in doses of gr. ij. to gr. v. is the best known remedy to destroy round worms. It should be given every night or every second night till three doses have been taken,



and a dose of castor oil should be given in the morning after the third dose.

**Purgatives**, such as scammony gr. ij. with calomel gr. iss., expel threadworms, but they irritate the bowel, and increase the formation of mucus. In the long run they are prejudicial, and ought never to be given except as an adjunct to other treatment.

**Rhubarb** to tone the digestive organs and expel worms is invaluable. The following is good :—

Tr. rhei . . . . .	℥xl.
Magnes. carb. . . . .	gr. xl.
Tinct. zingib. . . . .	℥xij.
Aquæ . . . . .	℥iss.
3j. t.d.s.	

**Tonics**.—Syr. ferri phosph. or vin. ferri, combined for weakly subjects with ol. morrhuæ, is always serviceable as a preventive measure after vigorous local treatment. They promote a healthy state of the intestine, which is incompatible with the presence of worms.

## WORMS (TAPE).

Tænia, or tapeworm, is a much more formidable variety than either of the other two. It is brought on by eating underdone beef or pork which contains the half-developed larva.

The tapeworm takes up its quarters in the bowel, and there remains until dislodged, feeding on the food which its host provides. The parasite possesses a minute head and segmented body, sometimes extending throughout the whole extent of the intestine—20 or 30 feet. It has no digestive organs, but waits until the partially digested food or chyle flows into the duodenum, when it takes its full share. The unfortunate host naturally gets thin, in spite of a voracious appetite. He is deprived of a large portion of his best nutriment, after he has had all the trouble of digesting it. The joints of the worm are continually thrown off and passed by the bowel. If

eaten by a dog, pig, or calf, the gastric juice dissolves the membrane or shell surrounding the eggs. These become hatched, and penetrate to the animal's liver and other parts, and are known as hydatids. The process is reversed if a man inadvertently consumes the tapeworm eggs of a dog or other animal, as is frequently done in Ireland and elsewhere ; then he himself suffers from hydatids, and not from tapeworm. These disgusting parasites are therefore propagated from one animal to another. Their history and mode of life are most curious, intensely interesting to those who study such topics.

#### TREATMENT.

**Filix Mas.**—Oil of male fern is the drug most frequently given in this country. The patient should have a light tea, no supper, and at bedtime take a dose of castor oil. On the following morning when the bowels have acted ol. filicis maris (ʒj. for an adult), floated on milk or in emulsion, should be given. In a few hours, when the bowels act again, the worm will be expelled, and it is important to search for the head.

**Kousso.**—ʒss. of the flowers suspended in water, fasting, and followed by an aperient. It is not always successful.

**Turpentine,** in doses of ʒij. to ʒss. is effective against all forms of parasites, including tapeworm.

**Sulphuric Acid.**—An old lady sufferer reasoned that by drinking the sourest thing she could find, she would rid herself of an inconvenient guest, and such proved to be the case. The following is her cure :—

Acid. sulphuric. aromat.	.	.	.	ʒj.
Aquæ ad	.	.	.	Oiss.

Let the sufferer take as much as possible of this through a glass tube, from time to time during the day until all is consumed. It is a safe remedy, and on or before the third day the worm usually comes away in a fragmentary and partially digested condition.

**Glycerine** taken in large quantities is another harmless and thoroughly good remedy. It possesses the great advantage of being harmless except to the parasite.

**Cocoanut** is a simple remedy which is well spoken of. The milk and pulp of one cocoanut is to be taken, fasting.

**Areca Nut** is the usual remedy administered to dogs and other animals when they suffer from these parasites : ʒj. to ʒij. of the powder mixed with a suitable vehicle, fasting.

## SURGICAL HINTS.

Rightly or wrongly, the public has recourse, and there can be no doubt will always have recourse, to the pharmacist in those emergencies in daily life arising from accidents, and involving such injuries as incised or contused wounds, burns, bites of animals, &c., and it seems highly desirable that he should be able to afford such a response to the calls thus made on him as shall not discredit either his humanity or his ability. A little knowledge and experience will enable him to do this, and will also more readily show him the special cases which are beyond the limits of his capacity to treat and which should at once be relegated to the surgeon. The 'ambulance' instructions which are given in many towns are excellent in this respect, and every chemist should avail himself of them when practicable. The following notes are given with the same view, and are meant to apply to such cases as are most likely to come before him in the course of his ordinary calling.

**Incised Wounds.**—There should be no difficulty in the treatment of slight wounds. A piece of court plaster applied after the bleeding has ceased is all that is required. The bleeding even from slight wounds is often troublesome, and as it prevents the plaster from adhering, it may be necessary to use simple means to arrest it. Pressure, or the application of cold water or a simple styptic, such as tr. perchlor. ferri or tr. benzoin. co., will generally be sufficient for this purpose. It is in the case of larger wounds that difficulty arises. There may be profuse bleeding which it is necessary to arrest, or the wound may be so wide that the edges must be brought together by artificial means, both to promote healing and to avoid a disfiguring scar. The most serious hæmorrhage proceeds from the severance of an artery. This may be known from the blood in that case being of a bright scarlet colour

and spurting out in jets. Venous blood, on the other hand, is of a dark purple colour and has an even flow. It will be recollected that the blood in the arteries is pure and its course is outward *from* the heart, while that in the veins is impure and its course is back *to* that organ. This fact will indicate that the pressure which is applied to arrest the hæmorrhage should be in the former case on the side of the wound *next* the heart, and that in the other case it should be on the side *away from* it. Any hæmorrhage can be stopped, at least temporarily, by firm pressure of the finger in the manner indicated above ; but in arterial bleeding this pressure can be effected more thoroughly by tying a handkerchief round the limb (if the wound be on the arm or leg), inserting a bit of stick beneath it, and screwing it round so as to extemporise a 'tourniquet.' All cases of profuse bleeding, whether from an artery or large blood-vessel, should be relegated to the surgeon, but pressure will most probably arrest it until his arrival. When bleeding has ceased, the next step to be taken is to bring the edges of the wound together and retain them in that position. If the wound is not too wide—in which case it may require to be stitched by the surgeon—this may be accomplished by small strips of adhesive or rubber plaster placed across the wound, not quite close to one another, and covered with a bandage. When the edges of a wound adhere to each other at once, they are said to heal by the first intention ; but without assistance this is a process of rare occurrence. Generally, through the access of microbic germs, suppuration is set up, and the process of healing becomes a much more tedious matter ; and it is here that the antiseptic treatment comes in. Before the wound is closed either by strapping or stitching, it is well washed with some agent that has the property of destroying germ life, and afterwards it is covered with it, and by this means healing by the first intention is generally secured. There are many different agents of this description, but it is satisfactory to learn from the most recent deliverance of Lord Lister, who originated this treatment, that in his opinion carbolic acid best fulfils all the required conditions.



It should be used in solution 1 in 40. Sometimes it will be necessary to use a *dry* substance to dust over the part. In such cases iodoform or aristol will be most suitable.

**Contused Wounds.**—Bruises and sprains are of almost daily occurrence. Although trivial as far as health is concerned, they give rise to considerable discomfort and pain.

A severe blow or wrench creates resentment on the part of the tissues. They swell up, and blood is effused into the part if the blow is hard.

Bruises are mostly the outcome of violence applied direct. Sprains are generally caused by an indirect wrench of some muscle or sinew, which causes the parts surrounding it to be swollen and painful, and to impair movements. A bad sprain is often worse than a fracture, and more persistent.

Rest of the part affected by a sprain is indispensable.

Hot applications are always better and safer than cold ones, with some few exceptions. They promote absorption and relieve pain, and they do it more effectually than any other applications.

The chief use of cold lotions is to reduce the swelling quickly and with the view of preventing discoloration, when the bruises or sprains are on exposed parts, such as the face. Cold water, ice, raw steak, or cold evaporating lotions made with ammon. chloride, liq. ammon. acetatis, arnica, acetic acid, or liq. plumbi well diluted and combined with a certain quantity of rectified spirit, are all in common use. After the second or third day, when all bleeding into the parts has stopped, recourse should be had to hot applications to promote absorption of the blood-salts creating discoloration of the skin.

Stimulating applications are usually of great benefit in the later stages. Lin. camphoræ or equal parts of lin. camph. co. and tr. opii, or any other stimulating embrocation, with friction seldom fail to do good.

To impart tone to the injured tissues and restore them to their natural state, vigorous rubbing and douching with cold or sea water are generally resorted to. Pressure by means of flannel or elastic bandages is equally helpful.

**Abrasions**, where the superficial skin has been destroyed and the flesh exposed, are best treated by gold-beaters' leaf.

**Chafing of the Feet** by the boots or by excessive walking is cured by the application of emp. cerat. saponis renewed night and morning.

**Bedsores** are a very distressing outcome of lengthened confinement to bed. The parts of the body on which the patient rests become tender and sore, and if the skin gets broken it is very difficult to heal, and is the cause of much suffering. More can be done in the way of preventing than curing this. The patient should lie on an air-cushion or a water-bed, and the parts, on any appearance of redness, should be dabbed with spirit to harden the skin. If the skin gives way, a dusting powder of equal parts of boric acid and starch is often useful. Emp. saponis or emp. cer. saponis affords great comfort to the patient in many cases.

**Burns** are treated of under that head.

**Bites of Dogs.**—There is difference of opinion as to the propriety of cauterisation of bites. If there should be virus present, the absorption of it by the blood would be instantaneous, and it is difficult to believe that any remedy could be applied in time to neutralise it. On the other hand, in all cases the party bitten and his friends will be found to have a great dread of ill consequences, and the application of caustic, as it can do no harm, may go far to restore confidence to them, and it need not interfere with any other treatment.

**Slight Injuries.**—A particle of sand or grit in the eye is a frequent occasion for the chemist's assistance being required. If it is under the upper eyelid it may be removed in most cases, especially when recent, by taking hold of the edge of the lid and bringing it down over the lower lid, so as to let the inside surface rest on the cheek for a few seconds. On restoring it to its natural position, it will be found to have left the offending particle behind. If it is in the lower eyelid, that should be everted so that the particle may be seen and removed with a hair pencil or the corner of a bit of paper.

Splinters of wood under the nail and foreign bodies in the

nose are removed by taking hold of them with a pair of sharp-pointed forceps, care being taken in the latter case not to push them further up. If in the ear, they must be washed out by syringing with warm water. Needles that have broken off beneath the skin and cannot be grasped by forceps should be let alone, as they give no trouble after the first, and have a way of working themselves out spontaneously. The Röntgen rays may be brought into requisition to discover their whereabouts with a view to their removal by the surgeon.

If a sound tooth has been knocked out it should be replaced at once, as it generally sets firmly again. If merely knocked out of position, an attempt should be made to pull it into place again.

## POISONING AND TREATMENT.

It is not desirable that the chemist should undertake the responsibility of the treatment of poisoning cases, and therefore his first duty on any such case coming before him should be to call in the assistance of a medical man ; but as this involves loss of time, and as the success of treatment depends on the promptitude with which it is administered, it will be well at once to undertake at least initial treatment. The first and the most important step to take is to empty the stomach of its contents, so as to get rid of any of the poison which may still be there. This step is applicable in all cases except where any very corrosive poison has been swallowed, for in that case any further disturbance of the stomach will greatly aggravate the corrosive action already set up in that organ. Vomiting is effected most readily by means of emetics, and the best of these, owing to the rapidity of its action, is sulphate of zinc, which should be given in the dose of 30 gr. in a glass of water. A tablespoonful of mustard in a cupful of tepid water is also a ready and effective emetic. An alternative mode of emptying the stomach is by means of the stomach-pump. This may be extemporised by using a  $\frac{1}{2}$ -inch indiarubber tube 5 or 6 feet long, with a funnel firmly attached to one end. Let the other end be dipped in glycerine and placed on the protruded tongue, and let the patient proceed to swallow it, assisting the swallowing by gentle pressure. From 2 to 3 feet, according to the size of the person, is as much as can be got in by the mouth. Next, hold the funnel above the level of the mouth and pour tepid water into it ; when full, turn it quickly into a basin, and lower both the basin and the funnel. The tube acts as a syphon and empties the stomach. Repeat the process two or three times until the water returns in the same condition as it goes in. It is necessary to emphasise the importance of emptying the stomach at as early a stage of the case as possible ; indeed, after some hours it is useless. After this has been accomplished, recourse must be had to

antidotes, either such as directly neutralise or decompose the poison, or such as produce physiological effects antagonistic to those of the poison. Stimulants also are often necessary to prevent collapse, and demulcents or emollients to allay the irritating effects of the poison. But it will be better to refer in detail to the poisons which are most in evidence, as it is impossible to cover them in a general reference.

**Acetanilide or Antifebrine.**—The symptoms of poisoning in this case are a blue appearance of the skin, depression of heart, fear of impending dissolution; and the treatment is by emptying the stomach, keeping the patient warm in bed, and giving stimulants— $\mathfrak{z}$ j. sp. aminon. ar. in water, and brandy in small and repeated doses, according to circumstances.

**Acids: Glacial Acetic, Hydrochloric, Nitric, Sulphuric.**—These corrode and destroy all the mucous membrane with which they come in contact, from the mouth to the stomach, causing immediate and intense burning pain and generally vomiting. Neither stomach-syphon nor emetics should be used. The alkalies or their carbonates—magnesia, lime, soda—should be freely administered, and, except in the case of sulphuric acid, with plenty of water, or even water alone in copious draughts. Soap dissolved in water, oils, and milk may also be used as emollients. The mouth should be freely smeared with olive or other oil to allay the effects of the burning, some of it being swallowed. It may be advisable afterwards to give a sedative— $\mathfrak{z}$ ss. liq. morph. hydrochlor.

**Acid, Carbolic.**—This is a most deadly poison. It acts not only as a corrosive, but also as a narcotic. It whitens and shrivels the membranes wherever it comes in contact with them, and insensibility and coma rapidly supervene. As in the case of poisoning by the mineral acids, the stomach should not be emptied at first. The best treatment is by emollients largely administered—oils and white of eggs—then by washing out the stomach carefully, by means of the syphon, with a solution of Epsom salts in tepid water, one to ten, afterwards renewing the emollient treatment and giving stimulants freely—sp. ammon. ar., brandy, strong coffee, &c. Another mode of



treatment has been recommended—viz., by a direct antidote. The sulphates of soda and magnesia form with carbolic acid an innocent compound, and either of them is given in solution, following this up by stimulants as required. The carbolate of lime is also a comparatively harmless compound, so that lime may be used with the same view as the above. The saccharated solution in large doses, diluted, would be the best form to use. Oil neutralises the caustic action of the acid externally.

**Acid, Hydrocyanic ; Potassium Cyanide.**—These are so rapid in their action as poisons that it is almost hopeless to get a chance of coping with them. The stomach is to be emptied if possible at once, and the antidote is the hydrated peroxide of iron, which may be extemporised thus :—Liq. ferri perchlor., ℥j. ; liq. ammoniæ, ℥ij. ; aquæ, ℥x. M. The whole for a draught. Besides this, cold affusion of the head, and stimulants freely, must be had recourse to.

**Acid, Oxalic, and Oxalates.**—The chief symptom here is severe burning pain in the stomach. Vomiting or emptying the stomach by means of the syphon is the first step in the treatment, then lime is given as an antidote, the oxalate of lime being an insoluble salt. The saccharated solution, diluted, will be found the most convenient way to give it ; but the carbonate will answer—ordinary whiting—or even plaster from the ceiling.

**Aconite.**—A peculiar tingling sensation, followed by numbness of the membrane wherever aconite has come in contact with it, is the characteristic sign of it having been taken. The stomach is to be freely emptied first, afterwards stimulants freely administered, and the patient put to bed and kept warm.

**Alcohol.**—The symptoms in acute cases of alcoholic poisoning often resemble those of apoplexy and epilepsy, and must be distinguished. The former can generally be known by the smell of drink about the mouth, and by the patient being capable of being roused to some extent. The treatment consists in washing out the stomach, applying cold affusion to

the head and ammonia to the nostrils, and giving strong hot coffee.

**Ammonia.**—Diluted vinegar or lemon-juice largely given is the treatment at first ; afterwards demulcents, as oil, gruel, or milk. Emetics and the syphon should be avoided, if the poison has been taken in any quantity.

**Antimony, Chloride and Tartrate.**—Butter of antimony comes under the category of corrosive acids, and poisoning by it is to be treated in the same way. In poisoning by tartar emetic vomiting is almost sure to be present ; if not, it must be induced, and then the antidote is tannin, gr. xx. or gr. xxx. in half a pint of water, and repeated, or a vegetable astringent, as tincture of catechu or kino ; afterwards warmth and stimulants, and probably mxxx. liq. morph. hydrochlor. will be required.

**Antipyrin.**—The symptoms are the same as in the case of acetanilide, and the same stimulant treatment is to be followed.

**Arsenic.**—The symptoms of arsenical poisoning are severe pain in the stomach, vomiting and purging, great thirst, and dryness in the mouth and throat. The stomach is to be emptied at once ; then a tablespoonful of dialysed iron given in water frequently for ten doses, each followed by a little common salt in solution, or ℥ss. tinct. ferri perchlor. may be given in a tumbler of water along with ℥ij. magnes. calc., or a little of a solution of washing soda. Cases have been treated successfully by magnes. calc. in large quantity. After this emollients must be used liberally—white of eggs, oil, &c.—and ice to allay thirst, and stimulants freely, according to circumstances.

**Belladonna and Atropine.**—Symptoms are great dilatation of the pupil and excessive dryness of the mouth and throat. Emetics or stomach-syphon are the first steps in the treatment ; then morphia or jaborandi is to be given as the physiological antidotes, either by the mouth or by hypodermic injection, in the latter case using pilocarpine ; afterwards stimulants, as ammonia, brandy, strong coffee.

**Camphor** taken in excess is a not infrequent cause of grave poisoning symptoms, which are to be treated by emptying the stomach, and by the exhibition of stimulants, as ammonia, and by keeping the patient warm.

**Cantharides.**—The symptoms of poisoning are burning pain in throat and stomach, with constant desire to micturate. The treatment is first by emetics or stomach-syphon, and then by demulcents—white of eggs, gruel, milk—and by stimulants and morphia for the pain.

**Caustic Potash and Soda** come under the same category as ammonia. Emetics and stomach-syphon are to be avoided.

**Chloral Hydrate.**—Drowsiness and stupor, and failure of the heart's action, are the symptoms of chloral poisoning. The stomach must be emptied first, and then strychnine administered,  $\text{m}\text{v}$ . of the liquor for three or four times at intervals of an hour. The patient must be kept warm, and prevented from falling asleep. Cold affusion of head, stimulants, an inhalation of amyl nitrite may also be necessary.

**Corrosive Sublimate and other Mercurials.**—There is severe burning pain in the stomach with vomiting and purging. Albumen forms an insoluble compound with hydrarg. perchlor., therefore administer white of eggs in unlimited quantity. Afterwards empty the stomach, and continue the white of eggs. Liq. morph. hydrochl.  $\text{m}\text{xxx}$ . should be given for the purging and pain.

**Lead, Acetate and Carbonate.**—Dry throat, great thirst, cramp, are symptoms in acute lead poisoning. Chronic poisoning is a different case altogether, and is not noticed here. In the former, emptying the stomach must be the first care, then it should be washed out with solution of magnes. sulph., as for carbolic acid. Afterwards give a good dose of magnes. sulph. or soda sulph., and repeated  $\text{m}\text{xx}$ . doses acid. sulph. dil. diluted, the object being to form the insoluble sulphate of lead. Demulcents, white of eggs, and morphia for pain will also be necessary; and lastly, a full dose of castor oil.

**Morphia and Opium.**—Great contraction of the pupil, drowsiness, and stupor are characteristic symptoms. The first step is to empty the stomach. Emetics are slow to act from the inhibiting action of the drug, therefore the stomach-syphon is to be preferred, but if not readily procurable, gr. xxx. zinc. sulph. should be given in a glass of water, followed by plenty of hot water to encourage its action. The liquid used for washing out the stomach with the syphon should be a solution of permanganate of potash, gr. xx. to Oij., and this solution should also be given afterwards internally in 1-oz. doses. Atropine is physiologically antagonistic to morphia, and should be used hypodermically, or given by the mouth in full doses. Above all, the patient must be kept from yielding to sleep, by walking him about, loud noises, strong coffee, cold affusion of head, and inhalation of ammonia.

**Nux Vomica and Strychnine.**—The first characteristic symptom of strychnine poisoning is recurrent spasmodic twitching of the muscles, increasing rapidly to a painful degree, with lockjaw and convulsions. Treatment: First empty the stomach by means of an emetic or the stomach-syphon; then give ʒss. chloral hydrate with ʒij. potassium bromide in water, and repeat in an hour. Convulsions are treated by the inhalation of chloroform.

**Paraffin Oil.**—Poisoning by this agent is marked by great distress, followed by coma. The treatment consists in emptying the stomach, and then administering stimulants—ammonia and ether—every hour, and keeping the patient warm.

**Phosphorus.**—Cases of poisoning by this may be known by the strong oniony flavour which it communicates to the breath. First use stomach-syphon or give an emetic—by preference gr. iij. cupri sulph.—every five minutes till it acts; then purge with Epsom salts, and give demulcents freely, avoiding oils and fats.

**Silver Nitrate.**—One ounce or so of common salt in a cupful of water should be given at once, and repeated if much of the poison has been swallowed. It forms insoluble chloride



of silver. Afterwards gr. xxx. zinc. sulph. as an emetic, or the stomach may be washed out with the syphon. Lastly, give white of eggs and demulcents.

**Tobacco.**—Intense nausea and prostration are the symptoms of nicotine poisoning. Empty the stomach first ; then give gr. xx. or xxx. tannin, or  $\mathfrak{m}\mathfrak{v}$ . liquor of strychnine, repeating either in half an hour ; afterwards stimulants freely.

**Vermin-killers** are composed of arsenic, or phosphorus, or strychnine, and are to be treated as such.

**Weed-killer** is a preparation of arsenic.

**Zinc Chloride and Sulphate.**—Chloride of zinc is a strong corrosive poison. In cases of poisoning by it, reliance should be placed on soda bicarbonate—half a teaspoonful in water or milk, repeated frequently—and then on demulcent drinks, white of eggs, and morphia if required. Sulphate of zinc will in all probability supply its own treatment by producing free vomiting.



## SURGICAL AND MEDICAL APPLIANCES.

There are various appliances which it is expected that the chemist should be able to supply and explain, especially in those localities where a surgical instrument maker is not to be found ; and it therefore becomes important that the former should be acquainted with the nature of the ailment for which they are required, and the principle on which their action depends. The object of the following notes is in some measure to afford this information.

**Air and Water Cushions.**—In cases of long-continued confinement to bed, the comfort derived by the patient from these appliances is inexpressible, and they also afford the best protection against the justly dreaded ‘bedsore.’ The air cushion or pillow is also a great comfort on a long railway journey. Articles that are air and water proof are made in a great variety of shapes and sizes, as cushions, pillows, mattresses, &c., to suit different parts of the body and different circumstances.

**Bedpans and Urinals.**—Provision for emptying the bowels and the bladder while the patient is confined to bed is made by these vessels. The bedpan is chiefly of two kinds—round and slipper-shaped—and of course must be flat, to admit of being pushed under the patient. The principal thing to be seen to in choosing one is that it admits of being readily cleaned (on this account earthenware is better than metal), and that it is provided with a good lid to be put on immediately after use. Urinals are made of glass, earthenware, metal, and indiarubber, and in a great variety of forms. Perhaps the most approved is the glass one, which is shaped so as to lie comfortably between the legs, and is only removed for the purpose of emptying it. For using only on the occasion a different form will be more convenient, one of a

shallower make. All the varieties are made both for male and female use. The variety of indiarubber urinals is very great, and is adapted for all occasions—for day use, for night use, and for travelling. One very ingenious arrangement has a tube passing down the leg with a stopcock at the lower end, by which it can be emptied at a convenient opportunity.

**Belts.**—There are various kinds of belts made to give support and warmth to different parts of the body. Elastic material is not suitable for them, except in the way of an insertion to adapt them to the form of the body. They are best made of a more rigid or a warmer material, and generally they are contrived so that they can be expanded or contracted by an arrangement of buckles or otherwise.

**Abdominal Belts** are principally for ladies' use during pregnancy and after accouchement. **Cholera Belts** are intended to maintain a moderate warmth over the lower part of the abdomen, and so to obviate any predisposition to cholera, and they will be found useful to wear by those who have any tendency to irritation of the bowels. They should be made of some woollen material, and they are to be had either with buckles or in one piece to draw on. **Lumbago Belts** should also be of a warm material. The cholera 'drawing-on' belt answers very well for lumbago too. Those who are subject to lumbago should wear them habitually. **Riding Belts** are best made of a stout material, and they may have a whalebone insertion at the sides, so that they may be more rigid and give greater support to the back. On the same principle as the foregoing, various other appliances are made, such as wristlets, corsets, breast supports, &c., which it is necessary only to mention.

**Bougies and Catheters** are instruments chiefly for passing into the bladder by the urethra. They are of silver, or preferably of gum elastic, and are made of various calibres. Bougies are for dilating the urethra, chiefly in cases of stricture, and they are also sometimes made for dilating the rectum and for the œsophagus. Catheters are for drawing off the water when that cannot be done by natural means. A

small size should be used at first, and the size gradually increased. Passing these instruments is a matter demanding some skill and care, as there is great risk of wounding the urethra; but the ability to use them can easily be acquired either by the patient or by an attendant, which is a fortunate circumstance, as many people require the habitual use of them. They should be kept scrupulously clean, and dipped in an antiseptic oil before use.

**Breast Appliances.**—There are various appliances for the breast and nipples when they are engaged in the process of suckling. It is often necessary to draw out the nipple, so that the infant may be able to get hold of it better. This is accomplished by a glass cup adapted to fit over the nipple and provided with a receiver, suction being applied either by the mouth through a tube or by an indiarubber exhaustor properly adapted. The same arrangement is utilised to relieve the breasts by drawing off milk when there is a redundancy of it. In this latter case it is necessary also to wear nipple shells when the infant is not suckling, to catch the milk and protect the dress. There are various kinds of shields to protect the nipples when they become sore, chiefly of glass, but sometimes of indiarubber or metal, and a feeding arrangement can be induced on them by means of a teat and tube in the same manner as in artificial feeding.

**Bronchitis Kettle.**—This is an arrangement for moistening the air of the sick-room by impregnating it with steam. This is effected by means of a tin kettle with a long spout from which the steam issues, the water being kept boiling continuously, either the fire or a Bunsen burner being used as the source of heat.

**Elastic Hosiery.**—There are various appliances of elastic material which are of great service to the legs, especially in cases of varicose veins, and which act by exerting firm and continuous pressure. Entire stockings from the thigh to the foot, and also appliances for different parts of the leg are made of this material—thigh pieces, knee caps, calf pieces, anklets, &c. These are generally kept in stock in various

sizes, but sometimes it is necessary to get them made to measure. The following is the *modus operandi*: The circumference of the limb is carefully measured at several points, and also the length to be covered from top to bottom ; and the article should be made about an inch less than the lateral measurements, to allow for the expansion of the material when in use. Inconvenience is often experienced in wearing these articles from the stoppage of circulation at the line where they end at the top and bottom, and the wearer should be advised to open down the seam for an inch or two at these points and insert a small gusset of linen. This elastic material is also sometimes used for making wristlets, and for abdominal supports suitable in pregnancy and other conditions of the womb.

**Eye Shades** are intended to relieve the eyes when they are in a weak condition, from the strain that is put on them by exposure to the glare of light or heat, and to cover them in the case of disfigurement from blows. They are made for one eye or for both, and also plain and concave. There is also a very useful eye shade which gives great comfort in reading.

**Inhalers** are required chiefly for the application of steam to the throat and chest, and frequently medicinal agents are applied in this manner—*e.g.* carbolic acid, eucalyptus, &c. Such agents must of course be of a volatile nature, and they are added to the hot water in the inhaler. This is simply a vessel to contain boiling water, with an aperture for the admission of air, and another fitted with a mouthpiece for inhaling by. The principal thing to be attended to about an inhaler is that it be of ample size, so that the boiling water may not cool down too quickly. For this reason, too, it should be well warmed before the boiling water is poured into it. It is also of importance that the mouthpiece should be of ample width. It is astonishing how little effort is necessary for inhaling from a wide aperture, as compared with a narrow one, and this is often a matter of great moment in cases where inhaling is required. It is also desirable to conduct the steam



from the inhaler to the mouth by means of a wide indiarubber tube 12 inches long or so, armed with a mouthpiece. By this means the inhaler can be kept at a distance from the patient while it is being used—a great advantage if he is confined to bed. Several ingenious instruments have been devised for the inhalation of chloride of ammonium. Hydrochloric acid and ammonia are placed in separate vessels, and their fumes are caused to unite when inhalation is required. There is also a convenient dry inhaler for menthol, eucalyptus, &c., and it is applicable either to the nostrils or the mouth.

**Injection Apparatus.**—It is often necessary to throw up liquids of different descriptions into the bowel or the vagina, and this is done by means of various instruments. Half a century ago the only available ones besides the ordinary syringe were the brass piston pump and the primitive ‘bag and pipe,’ which consisted of an ordinary bladder fastened on a bone pipe ; but both of these have been ousted from their position by the different varieties of indiarubber instruments now in use. This is almost to be regretted from one point of view, for it is not an unknown case to find that one even of the best rubber instruments after it has lain disused for some time has become useless owing to the perishable nature of the material, and this is a most disconcerting discovery in an emergency. The pear-shaped indiarubber bottles are still in vogue, although their use for enemas has become greatly superseded by more convenient instruments. They are still, however, the best form to use for children, and also where a small quantity of injection is used, as in feeding by the rectum, &c., and they answer admirably for the nose, ear, and urethra. The instrument which has come into almost universal use is the kind having a bulb in the middle, prolonged at each end by a tube, with a valve effecting respectively entry and exit of the injection. By pressing and relieving the central part the liquid is alternately sucked in and thrown out at the different ends, and an arrangement can be made by which this action is rendered continuous. An ingenious instrument for injection is D'Eguisier's ‘Irrigateur.’ It is a cylindrical vessel with a



flexible tube and stopcock attached. The injection is put into the cylinder, and the arrangement is such that on opening the stopcock the injection is thrown out with considerable force and in a continuous stream. All these instruments can be used also for the vagina with a suitable pipe. The vaginal douche consists of a receptacle placed at a height with a long tube connected with it and fitted at the other end with a suitable pipe. By this means a continuous stream and considerable force are obtained.

The principal use of enemata is to clear out the bowels in the case of obstinate constipation. For this purpose warm water alone, or with a little soap rubbed down in it, or castor oil added to it, is thrown up, and it must be done in considerable quantity—not less than 2 pints or more—the object being to dilate the bowel freely, so that it may soon return the injection used, and along with it the solid contents of the bowel. In other cases, such as in dysentery, and for nutrient purposes, where the effect depends on the retention of the injection, it ought to be in as small quantity as possible.

**Invalid Feeding.**—There is often difficulty and always inconvenience in feeding invalids who are confined to the prostrate condition, and various are the contrivances for overcoming it. The best is the feeding cup, which is made with a lid half covering it, and a spout in front, or simply with a long spout. These are of china or glass, and glass tumblers are also made on the same principle. The ordinary acid tube can also be made available for this purpose, the attendant holding the cup or glass containing the food. An elastic tube, one end of which is fitted with a mouthpiece and the other dips into the vessel containing the liquid, is suitable for self-use. Another plan may be recommended in cases of extreme weakness, as it involves the least possible exertion to the patient. Attach a little bit of sponge firmly to the end of a pencil or penholder and soak it in the liquid, and then insert it in the mouth. ‘Mouth sponges’ on this principle are sent out by the sundriesmen. The principle on which infant feeding is conducted is so simple and yet so perfect in its

application, as seen in the infants' feeding-bottle, that it seems unnecessary to say anything on the subject. Some people still prefer the old fashion of attaching the teat to the bottle itself (indeed, there are some who still cling to the old calves' teats, eschewing indiarubber) ; but the intervention of the indiarubber tube is all but universal, and surely the advantage it confers of leaving the infant's head free to move about is a sufficient ground of preference. In this connection it may be well to emphasise the necessity of punctilious cleanliness with regard to every part of the apparatus.

**Pessaries** are used to give mechanical support to the womb in cases of prolapsus or 'falling' of that organ. They are made of vulcanite or indiarubber, and in a great variety of shapes. A number of medicated pessaries are used in obstetric practice. These are made of a conical form, with concrete oil of theobroma or gelatine as a basis. The rectum is subject to a like prolapsus, which takes place after stool or after undue fatigue. When it occurs the protruded portion must be carefully replaced with the finger. This is often all the treatment that is necessary, but there are appliances for the purpose of giving support as in the case of the uterus, and the tendency can be cured by an operation.

**Sprays for the Throat and Nose** are designed to throw medicated liquids, in the form of fine spray, into those organs. This is done in a continuous stream by adopting an ordinary spraying arrangement and working it by the outer of two balls which are connected with the tube. There is also an arrangement by which steam becomes the motive power.

**Suspensory Bandages** are employed for suspending the scrotum when from a varicose condition of the veins in the testicle, from swollen testicle, or any other cause, it becomes enlarged and produces a dragging or bearing-down sensation. They are used also to obviate the possible bad results of severe exertion, as in hunting, rowing, or cycling. They are made of many different patterns, but the principle of them all is the same. They consist of a band passing

round the body just above the hips, with a bag of silk or cotton network attached in front. This bag is often fitted with under-tapes, which pass between the legs and are brought round and fastened to the band. This arrangement is meant to keep the bag securely in place, but this can generally be effected sufficiently in a well-made bandage without them. Of course it is essential that the bag should be well fitting, and it should be fitted in the morning before the scrotum becomes enlarged. It is often furnished with tapes, by means of which it can be contracted or enlarged.

**Trusses.**—Hernia or rupture is a protrusion of a portion of the bowel through the abdominal wall. This occurs in different parts of the abdomen, and it takes its name from these parts. The most common form is ‘inguinal hernia,’ from its occurring in the vicinity of the groin, where the abdominal wall is thinnest and gives way most readily. There is also ‘femoral hernia,’ from its happening near the thigh; ‘scrotal,’ from the scrotum; and ‘umbilical,’ from the umbilical opening. It appears as a swelling beneath the skin, and it is generally brought on by violent exertion, by straining at stool, &c. On the patient lying down it can generally be pushed back into the abdomen. This is ‘reducible’ hernia. When this cannot be done it is called ‘irreducible,’ and both kinds require the constant wearing of a truss. There is another form of irreducible hernia, where the protruded portion gets strangulated by the muscles. This demands instant surgical treatment, for if not attended to it is rapidly fatal. The object of the truss is to exercise pressure continuously and sufficiently firmly to prevent the protrusion recurring. For this purpose it consists of a pad and a metal spring going round the body: the former is to keep the bowel from protruding, and the latter to keep the pad firmly and evenly applied. Sometimes the rupture occurs on both sides, and then it is necessary that the truss should have two pads. Trusses should be put on before getting out of bed in the morning, and not taken off until after lying down in bed at night. It will be readily seen that the proper and comfortable fitting of

a truss is a matter of the utmost importance. Umbilical hernia is most frequent in children. Trusses are made to bring pressure to bear on the rupture, or this may be effected in an extemporised way by binding a raisin or a convex bit of cork over the opening. Under the application of this pressure the rupture will generally disappear, and it is very desirable that this end should be attained in early life, especially if the patient is a girl, for otherwise the results might be inconvenient in after life, when the uterus has to perform its natural functions.

## DENTISTRY FOR DRUGGISTS.

In this degenerate age ('degenerate' as regards the teeth) Dentistry has greater demands than formerly on her for service to suffering humanity, nor can it be said that she has not been equal to the occasion, for she has kept fully abreast in the great advance of science and art during recent years. She has adopted anæsthetic and antiseptic treatment in her major surgical operations, and she has availed herself of the highest resources of art in the mechanical details of preserving and replacing the teeth. It is, however, beyond the scope of this article to enter in detail on these higher walks of dental practice. A due acquaintance with them can only be attained by a practical training in the technical details of the profession. There is, however, short of this, ample scope for the exercise of the dental art, and the chemist's back shop is a time-honoured 'house of call' in dental emergencies. The present article is intended only for beginners and as a stepping stone to the higher branches of the art, and accordingly it treats only of the following : (1) extraction ; (2) stopping ; (3) scaling ; (4) preliminary operations for artificial teeth.

### Extraction.

It may be as well to state at the outset that extraction ought to be a minor part of dental practice. Formerly the 'have-it-out' doctrine was in vogue, and involved the loss of many a good tooth whose aching after due treatment might have been permanently cured by a proper stopping. Nowadays, when diseases of the teeth are fast on the increase, the conservative treatment is all the more necessary ; indeed, it may be laid down as a rule that extraction ought to be the exceptional course, and that a tooth should never be sacrificed while there is a possibility of it still doing service. Before anyone can become a competent and expert extractor



it is necessary that he should possess an anatomical knowledge of the teeth, and should also be acquainted with the difficulties and complications that may be expected in the operation. A tooth is divided into three parts—viz., the crown, which is that part of it above the gum ; the neck, which is situated at the margin of the gum ; and the root or fang, which is the part concealed beneath the gum and enclosed in the alveolus or socket. The solid structure of the tooth is composed of three substances—dentine, enamel, and cementum. Dentine is the material of which the crown and fang are mainly composed. It is a hard, elastic substance, translucent in its normal condition, but becoming opaque in disease. Enamel forms the hard covering of the crown of the tooth. It is thickest on the grinding surface, and thinnest towards the neck, where it terminates. Cementum greatly resembles bone, and forms the outer covering of the roots of the tooth. The pulp cavity is contained in the crown, and is prolonged down the centre of each fang, opening out of the end thereof. It is completely filled with the dental pulp, a soft cellular structure in which exist the blood-vessels and nerves.

There are thirty-two permanent teeth—viz., four incisors, cutting or front teeth (I) ; two canines, or eye teeth (C) ; four pre-molars, or bicuspid (B) ; and six molars (M) in each jaw. They are arranged as follows :—

			M	B	C	I	C	B	M	
Upper	.	.	.	3	2	1	4	1	2	3 = 16
Lower	.	.	.	3	2	1	4	1	2	3 = 16

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The four upper incisors have single and round fangs tapering gradually from the neck to the apex : the central are much larger and stronger than the lateral incisors ; the lower incisors have also single fangs, but they are smaller and flattened from side to side. The fangs of the eye teeth are larger and stronger than those of any of the others ; they are like a flattened cone in shape, grooved at the side, and are very firmly inserted in the sockets. They are the most lasting teeth in the head, and should only be removed as an extreme

resource. The upper bicuspid have the fangs either single and much flattened from side to side, or with a disposition to divide the fang into two, lengthwise, one externally, the other internally. The lower bicuspid fangs are round and tapering. The upper molars have three fangs ; the lower, two only. Two of the three fangs of the upper molars are situated towards the cheek, and the third towards the palate (palatine root), the latter being the largest of the three. Of the lower molars the anterior or backmost one is the largest, and the fangs of the lower are as a rule larger than those of the upper molars. Occasionally the anterior fang may be found divided into two, making three distinct roots to the tooth. When this is the case, the third root interferes with the inner blade of the forceps going down, thus causing a risk of breaking the tooth. This abnormal division applies more particularly to the first or six-year-old molar tooth, which is the largest of the three under-molars.

**The Instruments** required for the extraction of teeth are a set of forceps, gum lancets, elevator, and mirror. In selecting forceps, expense should not be spared in order to get them of the best quality of steel, and they are generally nickel-plated to keep them free from rust. The following are the principal forceps required :

One pair with straight handles and broad beaks, for upper centrals and canines.

One pair for upper lateral incisors and bicuspid.

For the incisors straight handles are the best, but for bicuspid it is sometimes an advantage to have the handles slightly curved.

One pair for lower incisors and canines, with bent beaks and straight handles.

One pair for lower bicuspid. The hawk's bill is a favourite shape, and of this there is a variety of forms.

All the foregoing are made to fit either side of the mouth. Upper molar forceps require to be adapted for the left or for the right side, as one side of the beak must be pointed and the other rounded.

Two pairs are needed for the upper molars (one pair for each side). They should have a good bend at the beaks, so as to reach conveniently well back into the mouth.

There are special forms of molar forceps, one or other of which it is an advantage to have. For instance, two pairs for extracting upper teeth with decayed and broken-down crowns. The inner blade is made with lancet point to admit of being pushed well up under the gum, and to rest against the palatine root, while the tapered point of the outer beak passes between the two roots on the buccal side of the jaw, the result being a firm grip of that portion of the tooth which unites the three roots. Two pairs for lower molars, one of them the hawk's-bill shape, and the other of the old-fashioned pattern. The molar forceps may be used for wisdom teeth, but sometimes they prove ineffectual.

Four pairs for stumps, two for the upper and two for the lower, with short beaks and long bayonet-form beaks.

Two pairs of excising forceps for snapping protruding parts of teeth which are not to be extracted when preparing the mouth for artificial cases.

Three elevators, one straight, the others curved for the right and left sides.

A mirror for viewing the position of back teeth and the condition of the backs of incisors, &c.

A double gum-lancet.

The principal instrument-makers supply sets of instruments similar to the above in leather folding-case. Good forceps cost from 7*s.* 6*d.* to 10*s.* per pair, according to finish and shape.

'In extracting teeth with the forceps it is essential,' says Mr. John Gorham, in his excellent little manual on 'Tooth Extraction' (H. K. Lewis, 1*s.* 6*d.*), '(1) to push their blades sufficiently deep, so as to get hold of a small portion of the fang ; (2) to loosen the tooth ; (3) to pull it straight out.' To this we might add that the patient must be seated in a good chair, whereon his head rests comfortably, and in a good light, and that the operator hold the jaw firmly. If the

operator works without assistance he should place the left arm round the neck of the patient, and take the lower jaw in the left hand. The following are the movements required in extracting the different kinds of teeth :

**Upper Incisors.**—Fix the forceps carefully to the neck of the tooth, rapidly push the beaks under the margin of the socket, and with a firm but slight twist of the wrist break the connection of the membrane, then remove the tooth with a direct pull. *Do not be jerky in the movements, else you will break the tooth.* This axiom applies to all cases. It has been well said by a high authority that the separation of the gum from the necks of the teeth by means of the gum lancet is wholly unnecessary, as the connection is slight, and is easily overcome by perfectly made forceps.

**Lower Incisors.**—Grasp the tooth firmly and press the forceps gently down, then give a slight rotary motion to disconnect, and pull up *without twisting*. A slight but firm forward pressure is an advantage in extracting upper and lower incisors.

**Canines** are to be treated similarly to incisors, with a greater tendency to outward pressure rather than circular movement. More force is required.

**Bicuspid.**—The adhesion of the roots of the tooth is broken by pressing outwards and inwards, then remove the tooth in the case of the upper, but with the lower the inward pressure must be followed by slight rotary motion before the tooth is lifted out.

**Upper Molars.**—Place the forceps carefully on the tooth, press with great force, so as to push the point of the beak into the process between the external fangs, and then with a downward and outward (with, if it seems necessary, an inward) motion, remove the tooth.

**Lower Molars.**—The forceps must be carefully placed on the tooth, so as to exclude any possibility of extracting the adjoining tooth—a thing which sometimes happens. Take the lower jaw in the left hand, press the instrument firmly down into the alveolus, and then, with a firm grip, press the



tooth inwards and finally outwards, whereby the connection is broken and the tooth may be lifted out.

**Stumps.**—The great thing in extracting stumps is to get a firm grip of them. Otherwise they may be treated like incisors if the crowns are gone or like the respective teeth if not. It is frequently necessary to use the elevator for them. This is simply a lever, the point of which is pressed between the root of the tooth and its socket, and the stump then removed as we would remove a nail. When exceptional force is required to remove a stump it is advisable to twist the end of a napkin round the forefinger of the left hand, and place it in a suitable position for use as a fulcrum.

The preliminary practice required to fit the chemist to undertake operations on his own account is best obtained at a local hospital. There is a legend that the dentist's pupil, like the barber's apprentice, makes his first essays with a sheep's head. This is erroneous. Nothing but practice on the living human subject will do, and modern custom permits experience in medical and dental matters to be gained at the expense of the non-paying class of patients. The use of anæsthetics in tooth extraction is becoming more popular. Nitrous oxide gas, on the whole the safest of dental anæsthetics, requires special apparatus, and the method of administration should be learnt at a hospital. Chloroform and ether are only given in presence of a medical practitioner. The subcutaneous injection of hydrochlorate of cocaine is useful, especially in the extraction of small stumps. It is not so effectual with double-fanged teeth. The injection is made by dissolving  $\frac{3}{4}$  grain of the hydrochlorate in 8 minims of a 2 per cent. solution of pure carbolic acid. Four minims of this solution should be injected towards the interior of the root of the tooth with a hypodermic syringe, the needle of which is pushed well 'home.' Keep the needle in, and the finger on the top of the gum for two minutes after the injection. Then withdraw slowly, keeping slight pressure on with the finger, and immediately the needle comes out press the finger on the opening, and keep it there for a



minute, until absorption has taken place. Repeat the operation on the other side of the tooth with the rest of the solution ; then wait a few minutes, to allow the cocaine to act, before operating. If a patient is overcome by the anæsthetic administer a little brandy, and allow 3 minims of nitrite of amyl to be inhaled.

A topical application is sometimes used, under the name of 'Calorific fluid,' for producing local anæsthesia. The following are good preparations of this kind :

Chloroform . . . . .	I oz.
Rectified spirit . . . . .	2 oz.
Citronella oil . . . . .	6 minims
Oil of bergamot . . . . .	30 minims

Mix.

Chloroform. . . . .	ʒiv.
Tr. aconiti . . . . .	ʒiv.
Tr. capsici . . . . .	ʒlj.
Ol. caryoph. . . . .	ʒss.
Camphor. . . . .	ʒss.

Misce.

To be applied to the gums as a fine spray, or on absorbent cotton.

## Stopping

is a most important part of dental practice, the effort of the dentist nowadays being to save the teeth, if that is at all possible. To do the work properly requires both knowledge and much experience, so as to be able to diagnose the condition the tooth is in before filling. Carelessness in this particular will certainly lead to a bad result, as the filling may be far worse than leaving alone. Pain in a tooth generally means an inflamed nerve or pulp, and to stop and seal up this inflammatory matter makes the condition worse. The inflammation will extend to the lining membrane of the socket ; and if the stopping is not taken out the tooth will have to be sacrificed. When there is inflammation of the nerve an arsenical dressing should be supplied, and kept in for twenty-

four hours at least. The following are good and safe forms for dressings :

(1)

	Parts
White arsenic, in impalpable powder .	1
Cocaine . . . . .	4
Lanoline . . . . .	5

Mix.

(2)

	Parts
Arsenic, in impalpable powder . .	1
Antipyrin . . . . .	2
Lanoline . . . . .	3

Mix.

After treatment with either of these the pulp loses its sensitiveness, and the dead matter should be removed. All the decayed parts of the tooth are completely removed by means of small steel chisels or excavators, of which there are many forms to suit the different angles which caries forms in the teeth. These are not difficult to use after a little practice, but the operator should always take care not to let the excavator slip when in use, otherwise the mouth or gums might be damaged. After excavating all the dead matter the clean surface may be treated with an antiseptic, such as mercuric chloride, sozoiodol, or iodoform and eucalyptus oil inserted on a tiny bit of cotton wool and sealed over with a mastic covering. Allow this to remain in for a day before putting in the stopping. White gutta-percha is the simplest stopping, is easiest inserted, and sometimes lasts for many years. A piece a little larger than is required should be used. Immediately before heating it in a spirit-lamp, remove the antiseptic from the tooth, insert a piece of dry absorbent cotton, dry the surrounding gum, and insert a roll of absorbent cotton between the gum and the cheek, so as to prevent the saliva wetting the tooth. Then dry out the hollow of the tooth thoroughly, and insert the stopping, pressing it well into the hole. When it sets trim off the surface with a sharp chisel or knife. Cement stoppings are now extensively used, and are un-

doubtedly superior to all others for front teeth. They are composed of a siliceous powder and a solution of phosphoric acid or chloride of zinc. They require considerable skill and special apparatus in manufacture, so that it is advisable to buy them ready made. The powder is provided in various tints from white to grey, to suit different coloured teeth. The powder is mixed with the liquid at the moment the cement is required. Its insertion presents little difficulty, the chief points to observe being to have a thoroughly clean and dry tooth, and the cement in the condition of a soft pill mass when inserted. Amalgam fillings are deservedly losing their popularity, as they stain the teeth black in the course of time. Gold fillings are the most esteemed. They are made by hammering gold leaf into the tooth, and to insert them properly one requires special training in a dental hospital. There are special instruments for stopping.

### Scaling.

The removal of tartar from the teeth is a simple operation. Tartar is a deposit of hard calcareous matter at the base of the crown, and is generally seen on front teeth. When deposited in large quantity tartar should not be allowed to remain; not that it has in itself any destructive influence on the teeth, on the contrary, were it not that it created inflammation of the gums, and assisted the lodgment of food and other matters, it might be allowed to remain as forming a protective covering for the teeth; its presence very often, indeed, imparts a distinct alkaline tendency to the fluids of the mouth, which is favourable. A set of scaling instruments (say half a dozen of Bell's pattern, fitting into one handle) are required. Having selected one of the proper shape, it is inserted a little way below the gum under the tartar, which with firm pressure can be scooped off. Several applications of the instrument are required in order to remove the whole of the tartar. There is little fear of hurting the enamel, as it is much harder than the scaling instrument. After removing the deposit, the enamel may be polished with pumice-stone moistened with peroxide

of hydrogen, but this is not always necessary. After this the gums between the teeth should be carefully injected with aromatic sulphuric acid, so as to create a healthy condition, and to make the gums grow firmly round the necks of the teeth. The gums generally bleed when the teeth are scaled.

### Artificial Teeth.

The fitting of artificial teeth is a department of dental practice which chemists must learn practically under a mechanical dentist, a month under whom is as good as a whole library of books. Moreover, most chemists will be content to know what to do up to the point of making the 'case,' and leave that part of the work to one or other of those manufacturing dentists who make cases to chemists' orders. The first thing to do with a patient who wishes, say, an upper case is to examine the mouth, and adopt all the conservative measures possible. Imagine, for example, that one or two of the molars and the canines are partially decayed, and the rest hopelessly gone. In these circumstances the canines, at least, should be saved by stopping, for they are a great assistance in retaining the artificial denture in its place. The molars also should be saved, for they assist mastication. Other back teeth should be extracted, unless a little of them appears above the gum. In that case, if they are not sensitive, they should simply be brought down to the level of the gum by removing the protruding points with the excising forceps. If the incisors have to be replaced by artificial teeth, it is preferable, if the stumps be sound, not to extract the teeth, but simply to break off the crown with the excising forceps, extract the nerve with a serrated needle, and insert an antiseptic dressing for a few days before finally drilling and stopping the stumps. The advantage of this course of treatment is that no artificial gum is required—an advantage quite worth the trouble which the operator has, and the intense pain which the patient experiences. A somewhat extensive selection of drills, burrs, and burnishers is required for treating the front stumps. These are used with the hand, or preferably with a dental engine,

which is worked by the foot, and which by rotating the instrument at a rapid rate cleans out the hollow in a remarkably short time. The crown surfaces of the stumps have also to be filed smooth before the stopping is inserted. If any teeth have been extracted it is advisable to wait for a fortnight or three weeks before the impression is taken. The requisites for impressions are a good set of trays for upper and lower cases. These are made of white metal, and of various shapes and sizes. When an impression is to be taken the tray is filled with the moulding material, inserted into the mouth and pressed well home, the material at the edges being pressed up with the fingers, so that a perfect mould of the gum edges may be obtained. In addition to this impression, a 'bite' has to be taken. This is done by taking a piece of the moulding composition, about 5 inches long and the thickness of the thumb, bending it to the shape of the mouth and inserting in the lower jaw. The patient is then asked to bite it naturally. The result is an impression which shows how the jaws come together and the angles at which the teeth are set. The best composition which chemists can use for impressions is Stent's or Dr. Wood's 'Acme Modelling Composition,' or the 'Perfected' impression compo supplied by C. Ash & Sons. They are compounds of waxy materials, coloured and perfumed. They become soft when placed in hot water, and set in the course of a minute without shrinking to any appreciable extent. Plaster of Paris makes the most perfect impression, but it is somewhat troublesome to use, and, as bits are left in the mouth, considerable experience is required to mount the mould. Having obtained the impression, nothing else remains for the operator to do but to match the colour of the artificial with that of the natural teeth. It is advisable, therefore, for him to have a few sets on hand for this purpose.

Further information regarding dental practice may be obtained from the following works :

Gorham's 'Tooth Extraction' (H. K. Lewis, 1s. 6d.).

Hunter's 'Mechanical Dentistry' (Crosby Lockwood, 7s. 6d.).



Cole's 'Manual of Dental Mechanics' (Churchill, 7s. 6d.).

Sewell's 'Student's Guide to Dental Anatomy and Surgery' (Churchill, 5s. 6d.).

Tome's 'Dental Anatomy' and 'Dental Surgery' (Churchill, each 12s. 6d.).

Fillebrow's 'Text Book of Operative Dentistry' (C. Ash & Sons, 10s. 6d.).

Dr. Richardson's 'Practical Treatise on Mechanical Dentistry' (Ash & Sons).

Flagg's 'Plastics and Plastic Fittings' (Waite, Liverpool, 13s. 6d.).

Webb's 'Notes on Operative Dentistry' (Ash, 9s.).

Coleman's 'Manual of Dental Surgery and Pathology' (Ash, 12s. 6d.).

## VISION, DEFECTS OF, AND SPECTACLES.

The eyeball is a spherical body about an inch in diameter, composed of many parts. It is externally protected by a very tough, though very thin, membrane. The greater part of this is of an opaque white, and is called the *sclerotic*, or popularly the white of the eye. Over the iris is a transparent membrane called the *cornea*. Behind this a small space is filled with aqueous humour, and next comes the iris or coloured portion, the part of the eye distinctively tinted, and adding so much to the expression and the character revealed by the face. In the centre of the iris is a small round opening, which is called the pupil, and which dilates or contracts involuntarily. *Belladonna* causes dilation of the pupil, and *Calabar bean* causes contraction. The pupil also adapts itself for viewing objects at a distance by dilation, while the examination of close objects is made with a contracted pupil. The ordinary size of the pupil, too, contracts as we grow older.

So much is what is seen on the external surface of the eye. But to understand what can be understood of the process of vision, we must learn something of the construction of the inner part of the eye. All rays of light, from any object within the range of our vision, are received on the pupil of the eye. They then pass through a crystalline lens, which is more or less convex, and the convexity of which in young eyes can be increased or diminished at will. This crystalline lens is a capsule, the normal shape of which is shown in fig. 1. Now, it is this power of adapting the convexity of the crystalline lens which enables us to focus any object, near or distant, in a moment. The rays of light from any object which we look upon are focussed on the retina (at the back of the eye) in strict accordance with the laws of light illustrated in all physical processes. Parallel rays, falling on a concave lens, are diverged, as shown in fig. 2. But if they fall on a convex

lens a reverse result ensues, the rays are converged to a focus (fig. 3). The latter is the process which occurs in the eye. Any pencil of light falling on the eye is first refracted towards the pupil by the cornea, then being received on the crystalline lens, it is sufficiently refracted so as to be focussed exactly on the retina, and in perfect vision on a particular point of the retina. It will be obvious that rays of light reaching this lens from a distance are much more nearly parallel than those proceeding from a close object; hence the necessity for greater convexity of the lens when the latter is being observed.



FIG. 1.

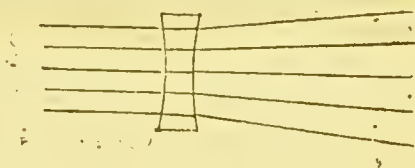


FIG. 2.

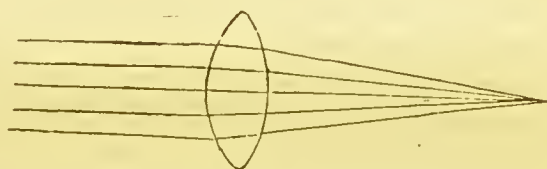


FIG. 3.

The retina is the marvellous nerve membrane at the back of the eye, the space between which and the crystalline lens is filled with a transparent 'vitreous humour.' The retina communicates the impression focussed upon it to the bundle of optic nerves which connect it directly with the brain, and thereby, in some mysterious method which neither science nor philosophy can elucidate, the sense of vision is conveyed to the mind.

The foregoing explanation is sufficient to make clear the more usual optical defects for which spectacles provide a more or less efficient remedy.

The most usual defect is that known as *presbyopia*, or old

sight, which is simply the result of a gradual failure as years advance, in the power of 'accommodation' of the eyes ; that is, of the power to increase unconsciously the convexity of the crystalline lens. The first indication of this defect is generally the necessity of holding the book or the newspaper at a greater distance from the eyes. As already explained, the rays from a near object are less parallel than those from a distance, and the convexity of the crystalline lens therefore cannot be increased sufficiently to allow of a distinct focus being obtained on the retina. Convex glasses are therefore required in order to bend the rays sufficiently before they reach the crystalline lens.

Sometimes a defect of a somewhat similar nature exists naturally in the eyes of the young as well as of the old. The form of the eye is defective ; it may be said it is not deep enough ; the convexity of the crystalline lens cannot be increased sufficiently to allow of a focus of near objects being obtained on the retina. This natural defect is called *hypermetropia*, or long sight. Of course convex glasses are required in such cases, just as in cases of old sight.

It will be understood that even what may be called a perfect shaped eye will, by failure of 'accommodation,' require glasses sooner or later, but that a hypermetropic eye will require them in the regular course, so much the earlier as is the extent of the imperfection.

The most common natural defect is *myopia*, or short-sightedness. This defect is becoming more common, and no doubt it is to some extent occasioned by the greater amount of reading and writing which is characteristic of modern times. Short-sightedness means that objects near can be seen with greater distinctness than those at a distance. Its cause is the exact reverse of that of hypermetropia. In myopia the distance between the crystalline lens and the retina is greater than the normal. Consequently the rays from objects sufficiently near are divergent enough to find a focus on the retina, but rays from objects at a distance being but imperceptibly divergent from parallelism are refracted by the

crystalline lens to a focus at a point falling short of the retina. The remedy for this state of things is obviously a concave glass, which, as shown above, causes divergence of the rays before they fall on the crystalline lens.

The foregoing are the most usual optical defects for which spectacles are provided. The only other defect which is frequent is *astigmatism*, which is the sheet anchor of the modern oculist, who generally can and does find it to a greater or less degree in the eyes of all those who consult him. It is likely to be a difficulty to a spectacle dealer, when a customer who believes himself to be short-sighted cannot be suited by any of the various sights offered him. It is caused by an irregularity in the spherical convexity of the cornea, and can only be corrected by cylindrical glasses, the degree of which should be judged by a competent and practised person.

Convex glasses are usually described according to the focal distance in inches. The usual sights vary from  $+8$  to  $+36$  or  $+48$ . The glasses  $+48$  and  $+40$  are only found to sell in rich neighbourhoods ; as a general rule when a man takes to wearing spectacles he begins with  $+36$  ; then a few years later he requires the next stronger glass,  $+30$ . But the seller must use his tact in fitting a customer with spectacles. The customer is liable to choose a lens which has to him a slight magnifying power. This he should be deterred from doing, and he ought to have a glass which lets him read with clearness at about 15 inches from the eye ; with a magnifying power he will bring the book nearer towards him and say he sees excellently ; with a too low power he will try after the focus by holding the book further away from him.

Concave glasses are numbered with a minus mark according as they exactly neutralise convex lenses. Thus a concave glass which when placed in front of a  $+36$  convex glass allows of free vision as through window glass is described as  $-36$ . Opticians generally have cases of 'triers,' with specimen lenses of various numbers and kinds, convex, concave, cylindrical, prisms, &c., which may be obtained more or less complete, at prices ranging from 2*l.* to 3*l.* and up to 7*l.* to 10*l.*



A focimeter is also employed, with type at the proper distance, and various strengths of glasses, by which an approximation to accuracy can be got.

Abroad, and frequently among scientific oculists in England, the old-fashioned system of numbering lenses according to their focal distance in inches is being displaced by the metric or dioptric system. By this system a focal distance of one metre is taken as the unit, and is called a dioptry. That would be equivalent to a lens of 39·33 English inches focal distance. A lens of half that focal distance (twice as strong) is described as of two dioptries, and there are intermediately 1·25, 1·50, and 1·75. The scale begins with ·25 (= 156 focal inches) and runs up to 20 dioptries (= 1·95 focal inches). The extremes are hardly ever required, the usual range, according to the dioptric system, being from 1 to 5 dioptries.

A chemist who proposes to undertake the spectacle trade should make a study of the laws of optics and the literature of oculism. In providing a stock he should bear in mind that convex glasses are those most in demand. A fair variety of concave glasses is also essential. The stock of folders and single eye-glasses would depend on the class of customers to be provided for. In manufacturing towns a certain quantity of goggles is called for. In seaside towns, where the sunshine is very glaring, protecting glasses in blue, green, or London smoke are often wanted. The last named is generally preferred. Blue is the best protection against snow-glare. The periscopic glasses invented by Wollaston are convex glasses, but with a concave inner surface, the object being to allow the eye to see equally well from all parts of them, and not as in the ordinary glasses, best from the exact centre only.

By keeping some of the better qualities fitted with these glasses, and properly explaining the advantage to customers, profits can be considerably enhanced at a very slight increase of cost. Much the same may be said of pebbles. Some oculists profess to believe there is no advantage in pebbles over ordinary glass, but professional opinions differ. By

touching the two with the tip of the tongue, the greater coldness of pebbles can be detected, and this is claimed to be an advantage to the wearer.

The iron-framed cheap spectacles which sell at 1s. per pair can be bought at 2s. 9d. per dozen ; goggles at 7s. per dozen are seldom sold at less than 1s. 6d. per pair ; spectacles bought at 20s. to 30s. per dozen sell at 3s. 6d., 5s., or 7s. 6d. per pair ; pebbles costing 48s. to 72s. sell at 7s. 6d. to 21s. per pair. For supplying special glasses to the order of an oculist, still more fancy prices are often charged. These profits seem tempting, but before the chemist rushes into the trade in the hope of realising them, he must remember that the work of building up a trade must be a slow process, and that customers as a rule prefer to go where there is a large variety to choose from.

It is a good plan to register in an indexed book every transaction, recording the sight of the lenses sold to every customer.

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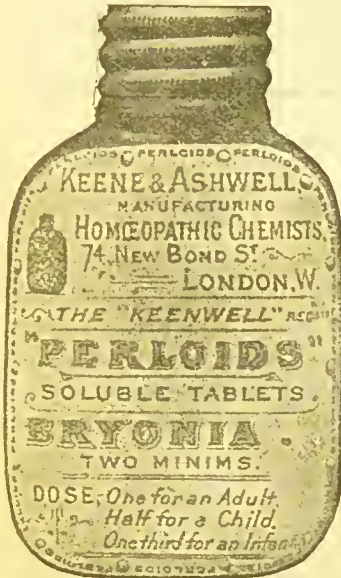
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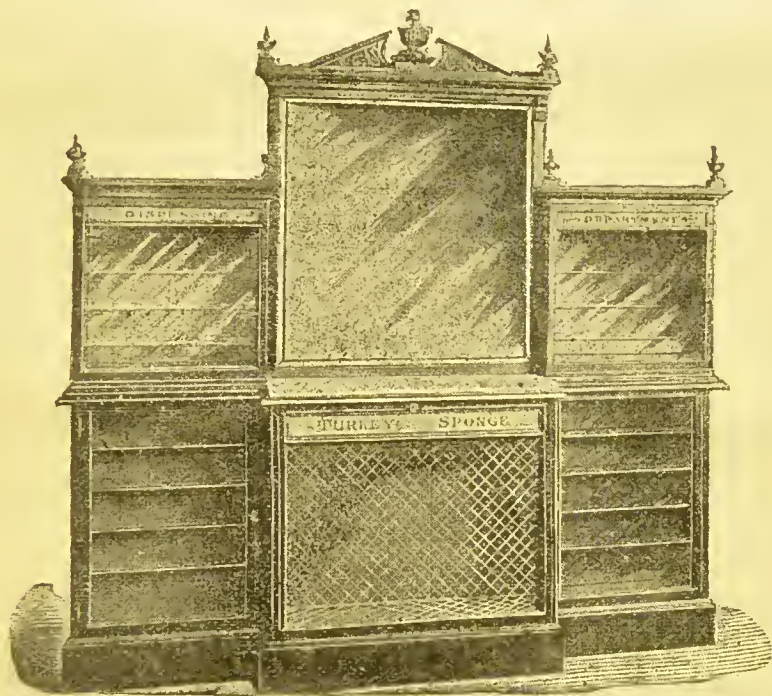
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